

ANNUAL MANAGEMENT REPORT

-1985-

LOWER COOK INLET

ALASKA DEPARTMENT OF FISH AND GAME
DIVISION OF COMMERCIAL FISHERIES

ANNUAL
FINFISH MANAGEMENT REPORT
-1985-
LOWER COOK INLET

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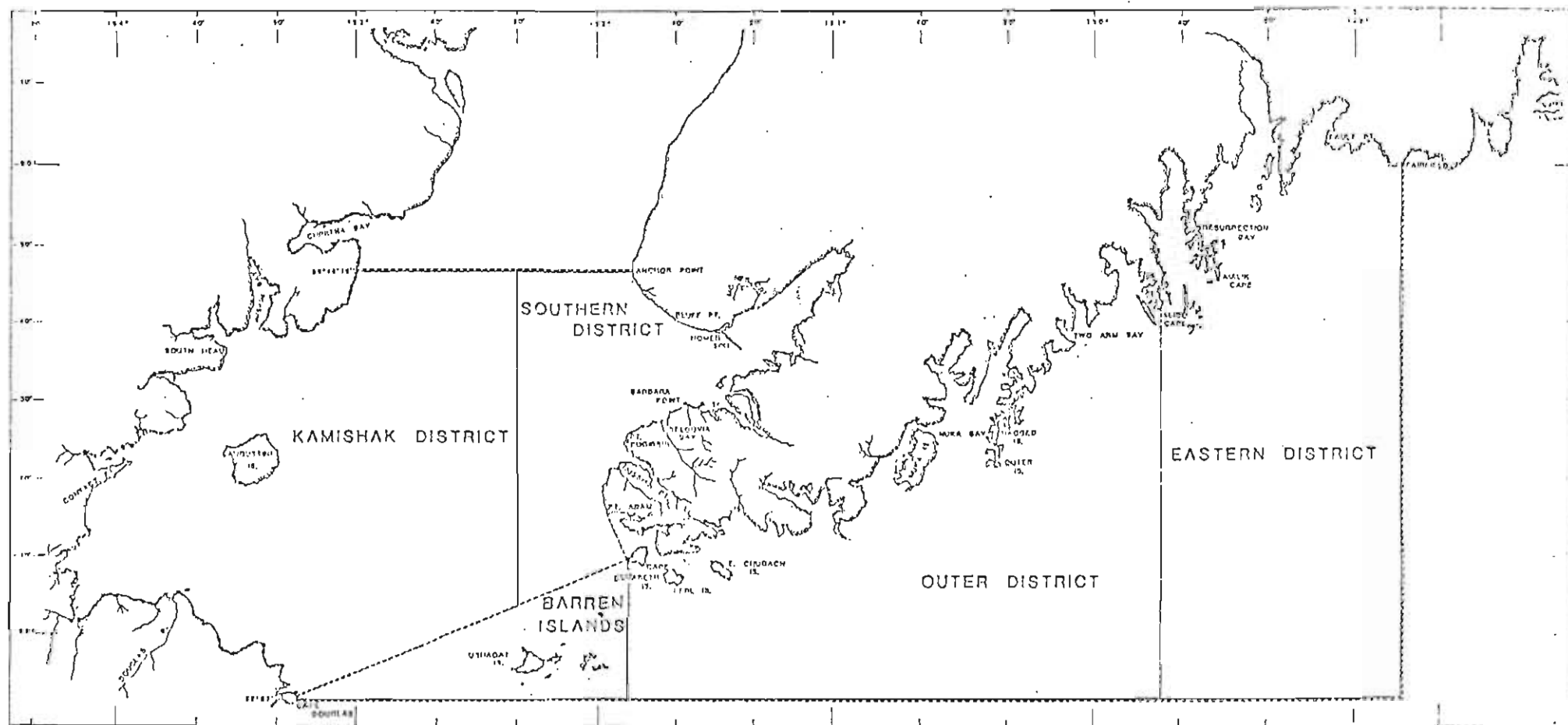


Figure 1. Lower Cook Inlet Management Area.

ANNUAL MANAGEMENT REPORT

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COMMERCIAL SALMON FISHERY

INTRODUCTION

The Lower Cook Inlet management area is comprised of all waters west of the longitude of Cape Fairfield, north of the latitude of Cape Douglas and south of the latitude of Anchor Point and has been divided into five fishing districts (Figure 1). The Barren Islands district is the only non-salmon producer and the remaining four districts have been divided into 25 subdistricts and sections to facilitate management of discrete stocks of salmon.

The 1985 Lower Cook Inlet salmon fishery was generally a success both economically for fishermen and in total harvest and return. The harvest of 1,550,419 salmon was 62 percent above average and was the sixth consecutive odd-year harvest of over 1.0million fish (Tables 1 and 8 and Figure 2). The harvest was comprised of 1,043 king, 278,694 sockeye, 10,327 coho, 1,229,717 pink and 30,638 chum salmon (Table 1).

The returns provided a number of surprises, as usual, along with a somewhat expected disappointment. Sockeye salmon harvests were above average in all districts and the 278,694 harvest set a new record and was 4 1/2 times the 30

year average. New record sockeye harvests occurred in the Kamishak Bay and Outer districts and were 22 1/2 and 8 times the 30 year average harvests in these districts, respectively (Appendix Tables 20 and 21 and Figure 3). The pink salmon harvest of 1,229,717 was 64 percent above average, but chum salmon returns were extremely poor, as expected, and the 30,358 fish harvest was only 24 percent of the 30 year average (Table 1 and Figures 4 and 5). Sockeye salmon escapements were excellent in all systems except English Bay Lakes and pink salmon escapements were good to excellent in all districts except Kamishak Bay (Tables 2-4).

The 1985 harvest had an ex-vessel value to the fishermen of \$2.812 million, 86 percent above average (Appendix Table 2). Pink and chum salmon prices continued to be severely depressed, but sockeye salmon prices, coupled with the record harvest, provided excellent incomes to fishermen this year (Appendix Table 3). Vessel effort remained low at 51 boats due to expected poor returns, low prices paid for pink salmon and a strong Upper Cook Inlet sockeye salmon return (Appendix Table 1). Set gillnet effort was average for the area at 34 permits.

SOUTHERN DISTRICT

Sockeye Salmon

The Southern district sockeye harvest was considered excellent, but was due primarily to the Leisure Lake return. The harvest of 84,149 was the fourth highest on record and was more than double the average harvest (Appendix Table 19). The China Poot Bay sockeye salmon return was the backbone of the Southern district sockeye salmon harvest for the third year in a row and accounted for 73 percent of the total sockeye harvest (Table 1). Seiners again accounted for the majority of the Southern District sockeye harvest, while set gillnet catches were below average. The set net harvest of 23,188 sockeye was the lowest since 1971, and nine percent below average (Appendix Table 17). The primary disappointment was the failure of the English Bay Lake return. The Southern district set gillnet harvest of sockeye salmon has always been reflected by the strength of the Upper Cook Inlet return. In spite of the exceptionally strong Upper Inlet sockeye return in 1985, these fish did not move into and through the Southern district for some reason. This change in migration pattern may have been related to the late spring snow "melt-off".

The China Poot Bay subdistrict was created by the Board of Fisheries for the 1985 season. The subdistrict encompassed waters outside of China Poot Bay from Tutka Bay to Peterson Point, including all waters of Peterson Bay, and allowed deeper draft fishing vessels to fish for sockeye salmon bound for Leisure Lake in China Poot Bay.

The subdistrict was opened to seining on June 27 and fishing was allowed inside the HEA powerline up to the markers at the stream mouth. Weekly catches were similar to 1983 and about half of the 1984 levels which indicated the return was on target for the projected return of 59,000 fish. The return has progressed to where it is now comprised of three major age classes of sockeye. This was reflected in the average weights of returning adults which increased almost 0.9 pounds and was the first year that the average weight exceeded five pounds (Schroeder, 1985).

Cold water from a late snow melt-off delayed returns slightly, but definitely slowed the movement into the spawning system. This was reflected in the personal use dipnet fishery and recreational fishery which did not experience much success until the last 10 days of July. Pink salmon began appearing in the catch in late July and the China Poot subdistrict was closed to fishing on July 27 to protect this expected weak return. The final sockeye harvest of Leisure Lake fish was estimated at 61,500 with an additional dipnet and recreational harvest of 3,500 fish. The total estimated return of 66,000 sockeye was 11 percent above the forecasted return of 59,400.

The only major natural sockeye return in the Southern district occurs at English Bay. The 1985 return to the English Bay Lake system was extremely weak. Subsistence catches in May and early June gave a strong indication of the weak return and, coupled with aerial survey estimates of escapement into the lakes, resulted in a closure of the set gillnet fishery in the Port Graham subdistrict on June 15.

Escapement levels built very slowly from 400 fish at the closure to 4,000 on June 27. The escapement rate dropped off and the final estimate of 5,000 fish was only half of the lower end of the desired escapement range (Table 4). The set gillnet fishery was reopened on July 11 after it was determined the sockeye return was over. The sockeye harvest in the Port Graham subdistrict of 3,500 fish tied the record low harvest for this area since 1959 (Appendix Table 16). This fishery will be discussed further under the subsistence fishery section.

Pink Salmon

The Southern district pink salmon harvest of 518,898 was 72 percent above average for the district and was due entirely to the harvest of over 491,000 fish bound for the Tutka Lagoon Hatchery (Tables 1 and 7, Appendix Table 19 and Figure 6). The hatchery return provided 95 percent of the Southern district pink salmon harvest and the total return was only four percent below the pre-season forecasted return. The 1985 return was reduced from the maximum hatchery potential due to the lack of a successful feeding and rearing program in 1984.

The Tutka Bay subdistrict was opened to seining on June 27. Harvests during the early part of the return were similar to 1983, but dropped off drastically just as the harvest should have been peaking during the third and fourth weeks of fishing (Table 7). The first of six lagoon openings occurred on July 8 to eliminate the early season buildup in the lagoon which usually contains a very high percentage of male fish. Reduced fishing effort in Tutka Bay resulting from low overall effort and fleet dispersal to the strong sockeye producing

systems, necessitated the numerous lagoon openings to maximize the harvest of the return (Table 7). Over 25 percent of the entire Tutka subdistrict harvest came from the lagoon openings.

Seldovia Bay experienced a very weak pink salmon return in 1985 and the bay was never opened to commercial seining. The 3,800 fish harvest was taken entirely by set gillnets in the area (Appendix Table 13). Aerial surveys of Port Graham Bay indicated a good buildup of pink salmon in late July and the subdistrict was opened to seining for 48 hours from July 25-27. The short opening resulted in a harvest of only 485 pink salmon, as most of the fish moved into the river just prior to the opening. The remainder of the pink salmon harvest of 12,500 in the Port Graham subdistrict came from the set gillnet fishery, with over 8,800 fish being taken near English Bay.

The Humpy Creek subdistrict was the only other portion of the Southern district opened to the harvest of pink salmon in 1985. The return appeared relatively weak until late July with most aerial surveys never indicating more than 500 fish present along the beaches near the creek. Escapement levels, however, climbed from 2,000 fish on July 14 to 12,700 on July 24 and 37,000 on July 30. The subdistrict was opened on August 1 with fishing allowed up to the Department marker buoy in the creek. Little fishing effort shifted to this difficult fishing area and the harvest of 5,557 fish did little to slow the escapement buildup which reached 74,000 by August 12. The remainder of the 11,400 pink salmon listed in the Humpy Creek area were taken in the China Poot subdistrict incidentally to the directed sockeye salmon fishery (Appendix Table 13).

Pink salmon escapements to the major spawning streams in the Southern district were considered good, except for Humpy Creek, which again had an excessive number of spawners reach the stream (Table 2). The China Poot and Barabara Creek escapements were considered poor.

Miscellaneous Species

The chum salmon harvest of 5,509 was less than half of the average harvest for the subdistrict (Appendix Table 19) and was believed to be the result of poor ocean survival conditions which persisted in 1982 and 1983. Over 75 percent of the chum salmon were taken by set gillnets, primarily in the Seldovia and Tutka Bay subdistricts (Table 1 and Appendix Table 15). Chum salmon escapements were very poor to the three major systems in the district (Table 3).

The coho salmon harvest of 4,258 fish was 15 percent above average with over 60 percent of the harvest occurring in set gillnets in the Port Graham subdistrict (Table 1 and Appendix Table 19). The major return to that subdistrict occurs to the English Bay Lake system. No escapement surveys are conducted on this species.

OUTER DISTRICT

Sockeye Salmon

Delight and Desire Lakes located in the East Nuka subdistrict continue to be the only major sockeye salmon producers in the Outer district. A new record harvest was established in 1985 with 91,957 sockeye being taken from this subdistrict (Table 1). The record harvest was over six times the average sockeye harvest for the Outer district and 38 percent above the previous record set in 1982 (Appendix Table 20).

Aerial surveys began on June 12 and over 600 sockeye were already schooled off the mouth of Desire Lake Creek. This number increased to over 15,000 by June 21 with an additional 4,000 fish in the two lagoons at Delight. The fish were not moving into the lake at all and it appeared that the late snow melt-off, creating colder water temperatures, coupled with several avalanche areas across the creek were delaying fish from moving into the lake.

The first opening for the East Nuka subdistrict was announced for June 24 due to the lack of escapement in Desire Lake. A one mile radius area around the mouth was opened by flare for only one hour from 9:00 until 10:00 a.m. and then remained closed until June 27. The fish began moving rapidly into the lake during the next two days and with over 6,000 sockeye in the lake and stream, the closed area at Desire was opened on June 27 with the markers removed. Many fish were too far up on the intertidal flats for fishermen to

catch and the escapement level climbed to 13,000 in the next two days.

Fish began moving from McCarty Lagoon into the "in-stream" lagoon at Delight Lake Creek on June 24. By June 28, over 6,000 fish had reached the lagoon and McCarty Lagoon was opened to seining on July 1, which allowed fishing up into the creek mouth below the "in-stream" lagoon. Fishing into the creek mouth at Delight in past years has succeeded in virtually stopping the escapement into the lake. However, a miscommunication between the processor and the fishing fleet caused fishermen to believe that McCarty Lagoon had only been opened to fishing for 48 hours from July 1-3. An aerial survey of the system on July 5 indicated fishermen fishing outside the lagoon and that several had left the area. Sockeye were rapidly moving into the "in-stream" or freshwater lagoon and into the lake.

Fishermen were informed immediately of the mistake and that McCarty Lagoon was still open and had never been closed. With over 16,000 fish already in the lake and an additional 9,000 in the freshwater lagoon, fishing time in the subdistrict was increased to seven days per week and the freshwater lagoon in Delight Lake Creek was opened for the first time. Dropping tides allowed for the fleet to fish only one tide in the lagoon and resulted in just over 5,000 sockeye being harvested. One additional set two weeks later resulted in another 1,700 fish harvest from the freshwater lagoon.

Fishing time was reduced to two 48 hour periods, the freshwater lagoon at Delight was closed and the markers at Desire were put back in effect on July 20 when good catches of pink salmon began. The subdistrict was closed on July 27 due to low pink salmon escapements to Desire Lake Creek, but McCarty Lagoon

and a one mile radius area around Delight Lake Creek were reopened on July 29 because of the continuing strong sockeye run. The entire subdistrict was reopened on August 1 and good sockeye harvests continued at both lakes.

The sockeye returns to both lakes were extremely strong and catches continued into mid-August. Escapement goals of 10,000 fish were exceeded to both lakes with escapement levels estimated at 18,000 and 26,000 for Desire and Delight, respectively (Table 4).

Pink Salmon

Pre-season projections for the pink salmon return to the Outer district were generally dismal. Severe flooding in the fall of 1983 lowered fry levels in many major spawning streams and good returns were anticipated only in the small drainage systems in Nuka Bay and to the intertidal spawning areas in Port Dick.

The Outer district harvest of 618,222 pink salmon was considered good and greatly exceeded pre-season expectations (Table 1). The harvest, which was 57 percent above average, came primarily from Port Dick Bay and Nuka Bay (Appendix Tables 13 and 20). South Nuka Island, which saw little harvest was the biggest disappointment and was expected to produce a good return because of its small watershed and good 1983 spawning escapement.

Waters of the Port Dick Bay subdistrict east of the Middle Creek to Shelter Cove line were opened to fishing on July 12. Aerial surveys indicated an increase of pink salmon along beaches in the bay from 29,000 on July 10 to

82,000 on July 12. No effort occurred until July 15 due to the majority of the fish being schooled inside of the closed waters area.

The strong buildup of pink salmon inside of Shelter Cove warranted an opening for 12 hours from 10:00 a.m. until 10:00 p.m. July 15 to reduce the accumulation of fish. Only 15,000 pinks were caught and little effort occurred until July 30 when the late run of pink salmon began arriving. Accumulations of fish inside the Shelter Cove line increased and fish began moving into the spawning stream. Fishing was allowed up to the head of the bay on August 1 and the harvest increased dramatically. By August 5, good numbers of pink salmon had also schooled up inside the closed waters near Island Creek.

The markers at Island Creek were adjusted, opening the area east of the creek mouth to fishing on August 6-10, to reduce the early accumulation of pink salmon inside the normal closed water area. A second opening was allowed for one hour from 5:45 until 6:45 p.m. August 13 by flare.

Waters inside the Shelter Cove to Middle Creek line were closed again on August 14 with the harvest at 415,000 and less than 40,000 pink salmon in Port Dick Creek. Subsequent aerial surveys indicated further buildup of fish at the head of the bay and an 800 yard section of shoreline west of Shelter Cove was opened to fishing by flare for two hours from 11:00 a.m. until 1:00 p.m. on August 19.

The total pink salmon harvest from Port Dick of 455,600 fish represented 74 percent of the Outer District pink salmon harvest and was more than three

times the 1985 harvest (Table 1 and Appendix Table 13). The harvest was the fifth highest on record for Port Dick (Appendix Tables 13 and 14) and escapement levels to Port Dick and Island Creeks were considered good to excellent (Table 2).

With less than 500 pink salmon in Desire Lake Creek, fishing time for sockeye salmon in the East Nuka subdistrict was reduced from seven days per week to the standard two 48-hour weekly periods on July 20 to protect pink salmon beginning to arrive in the area. The markers at Desire Lake were also put back in effect on July 20 and the East Nuka subdistrict was closed on July 27. A portion of the subdistrict near Delight Lake was reopened on July 29 due to the continuing strong sockeye salmon returns. The area near Desire Lake was kept closed with a pink escapement of only 1,100 fish on July 27, but was reopened August 1 after the escapement level had reached 4,000 fish with over 11,000 additional fish schooled along the beach. When the pink salmon escapement in Desire Lake Creek reached 14,000 on August 5, the markers at Desire Lake Creek were removed. Catches remained good, but most fishing effort ceased in the area on August 17 with 25,000 fish in the creek. The final escapement of 62,500 indicated a large number of fish continued to move into the stream after fishing effort ceased (Table 2).

James Lagoon located due west of the mouth of Delight Lake Creek on the western shore of the East Arm of Nuka Bay is the only other major pink salmon producer in the East Nuka subdistrict. Three openings were allowed in the lagoon: one hour from 8:30-9:30 a.m. August 1, five hours from 9:00 a.m. until 2:00 p.m. August 6 and four hours from 5:00 until 9:00 p.m. August 13. The openings produced a harvest of over 25,000 pink salmon and the escapement

of 9,000 fish was considered excellent (Table 2). Fish acted very peculiar in their schooling patterns in the lagoon compared with past years. They were very hesitant to move into or even close to the stream mouth until late August. Whether or not this was due to colder water temperatures from the late spring "melt-off" could not be determined, but was observed in other locations in the Outer district as well.

The Nuka Island subdistrict was opened on July 15, but no fishing effort occurred in the area until July 26. The return to South Nuka Island Creek began along normal run timing, but appeared weak and the subdistrict was closed on July 27. A fair return continued to Mike's Bay along Nuka Island just north of South Nuka Island Creek and a 1 1/2 mile radius area around Mike's Bay was reopened on July 29. The subdistrict harvest of 9,600 came entirely from this area.

The escapement of 3,600 pink salmon to South Nuka was poor (Table 2), but excellent escapements occurred to Mike's Bay and other minor producing streams in the Nuka Bay area. Berger Bay, Tonsina Bay, Nuka Passage, Yalik Bay and the West Arm of Nuka all received fair to good escapements of pink salmon. These streams are so small and numerous that they are normally not listed on escapement tables. Returns to these streams are primarily during odd numbered years and have produced sizeable harvests in some years.

Only two other subdistricts in the Outer district were opened during the 1985 season. The Port Chatham subdistrict was opened on July 25 for 48 hours and reopened on August 1 after it appeared the escapement goals had been achieved. Only 7,000 fish were harvested and the final escapement of 8,900 pink salmon

to the four spawning streams was below the goal, but considered acceptable (Table 2). The Windy Bay subdistrict was opened to fishing on August 1, but most fish had moved inside of the closed water markers prior to the opening. Three vessels harvested 4,800 pink salmon and the final escapements to both streams were considered poor (Table 2).

Chum Salmon

Chum salmon returns to the Outer district were generally considered poor and were attributed to the poor ocean survival conditions which existed in 1982 and 1983 resulting in extremely poor pink salmon returns in 1983. Chum salmon escapements to all streams except Dogfish Lagoon and Island Creek were very poor (Table 3). The Dogfish Lagoon escapement of 4,900 chum salmon was considered fair and is probably low based on a July 24 survey that estimated over 7,500 fish in the lagoon.

The Port Dick subdistrict was the only portion of the Outer district opened in 1985 to the harvest of chum salmon. The chum salmon harvest of 9,600 fish represented 81 percent of the Outer district harvest of 11,844 (Table 1 and Appendix Table 15). The total harvest was 85 percent below average for the district and continued the depressed status of chum salmon harvests in the district during the past three years (Appendix Table 20). The majority of the chum harvest occurred during the pink salmon fishery and neither special marker adjustments nor openings and closures were made specifically for chum salmon. The Island Creek escapement in Port Dick of 9,100 was considered good, but the Head End Creek escapement was poor (Table 3).

Coho Salmon

A very significant coho salmon harvest occurred in the East Nuka subdistrict in 1985. The harvest of 3,210 coho salmon came almost exclusively from this area near Delight and Desire Lakes and was almost nine times the average harvest in the Outer district (Table 1 and Appendix Table 20). Several vessels heading back to Seward on August 23 caught over 600 coho at Desire Lake while "cleaning up" excess pink salmon in the area. With the interest shown for additional fishing time on this return, fishing in the East Nuka subdistrict was extended past the normal August 31 closing date to September 4 on a seven day per week basis. Two vessels harvested 2,456 coho averaging over 12 pounds from the Desire Lake area.

McCarty Lagoon at Delight lake was kept closed during this extended fishing time due to the more intense recreational fishing pressure on that return. Aerial surveys of the two lake systems on October 17 indicated good coho salmon escapements of 1,250 and 1,050 to Delight and Desire Lakes, respectively. Visibility along the shoreline of the lakes was poor and it is felt that actual escapement levels were considerably higher.

KAMISHAK DISTRICT

Sockeye Salmon

The 1985 Kamishak Bay district sockeye salmon harvest of 78,250 set a new record for the second year in a row (Table 1 and Appendix Table 21). The harvest was over 22 times the average and over three times the previous record set in 1984. The record harvest was entirely due to the tremendously strong return to an 80 acre pond called Mikfik Lake in the McNeil River subdistrict.

Aerial surveys on June 3 and 6 indicated that no sockeye had begun arriving at Mikfik. However, due to an expected good return, the lower three subdistricts in the Kamishak district, Bruin Bay, McNeil River and Kamishak-Douglas, were all opened to fishing on June 7. A June 10 survey indicated the 5,000 fish escapement was protected in McNeil Lagoon and fishing time was extended to seven days per week. Good catches were made by four vessels, but they were unable to stop the movement of fish into the lagoon. A June 12 survey indicated over 8,000 fish inside the lagoon with 4,000 of those in the stream.

McNeil Lagoon was opened to fishing at 10:00 a.m. Wednesday June 12 and over 34,000 sockeye were harvested during the next 48 hours. However, even with the increased vessel effort from four to six vessels and fishing allowed in the lagoon, the sockeye escapement rate increased. A low series of high tides restricted lagoon fishing and at 10:00 a.m. Friday June 14 the escapement was estimated at 13,000 fish, almost triple the escapement goal.

Problems had arisen with the Game Division in 1984 over their concern about entirely blocking off Mikfik Creek due to bears associating fish, that gilled in the seine used to block the stream, with human activity and scent. The Anchorage regional office was contacted and permission was given to block off the stream at 4:00 p.m. on June 14. This allowed the seine fleet to maximize the sockeye salmon harvest and an additional 22,800 fish were harvested before McNeil Lagoon was closed to fishing on June 22. Sockeye continued to move into the lagoon and creek and McNeil Lagoon was reopened to fishing for 43 hours from June 27-29 and an additional 2,200 sockeye were harvested. The final lake escapement was estimated at 20,000 fish, four times the goal (Table 4).

Chenik Lake located just north of McNeil River also experienced a strong return for the second year in a row. The strong return was directly related to the 1981 stocking of one million sockeye fry in Chenik Lake. Fish began arriving as expected in late June and by June 27 over 9,000 fish were schooled off the mouth. Late snow melt-off created a velocity barrier at the intertidal area and along with the falls, prevented sockeye salmon from being able to reach the lake in any numbers.

A short one hour opening was allowed on July 1 to reduce the buildup, which exceeded 12,000 fish. Five vessels cooperated in the densely packed fish and harvested half of the accumulation. The numbers of schooled fish increased steadily and a second opening for 14 hours was allowed on July 12 resulting in an additional harvest of 4,400 sockeye.

The final harvest of Chenik Lake sockeye was 10,600 fish. Only 3,500 fish eventually reached the lake and it is estimated that 10,000 fish died below the falls in the intertidal area. The spawning success of the fish that reached the lake is questionable due to the extensive delay in saltwater. The escapement is below the desired level, but is still good compared with years prior to 1980 (Table 4).

Miscellaneous Species

The chum salmon returns to the Kamishak district were very poor and far below expected levels. Even with complete closures, most spawning systems achieved less than 40 percent of the lower end of their escapement goals and ranges (Table 3). The harvest of 8,139 fish was taken primarily near the Douglas River area when several vessels were looking for early returning coho salmon in August (Table 1). The low harvest was only 20 percent of the average for the district and has again been attributed to the poor ocean survival conditions experienced in 1982 and 1983 (Appendix Table 21).

Pink salmon harvest in the Kamishak district was all but nonexistent and, at 194 fish, was far below the average annual harvest of 30,982 (Appendix Table 21). Escapements were also poor except for Sunday Creek and Brown's Peak Creek which achieved good to excellent escapements of 11,400 and 7,000 fish respectively (Table 2).

Coho salmon have become extremely important in recent years and more effort has occurred on this species each year. Extremely bad weather prevented much harvest in 1985 and the final harvest of 2,024 was 20 percent below average

(Table 1 and Appendix Table 21). One additional extension of fishing time was given to compensate for the weather when fishing time was extended from August 31 until September 7 on a seven day per week basis. All fishing effort ceased on September 1 after a severe storm tore up most of the seine gear being used. Escapement surveys on September 11 indicated over 21,000 coho salmon in the four major spawning systems, very similar to the 1982 escapement levels when 38,685 coho salmon were harvested.

EASTERN DISTRICT

Sockeye Salmon

The Eastern district continued with above average sockeye salmon harvests for the third consecutive year. The 1985 harvest of 24,338 fish was 2 1/2 times the average for the district and was entirely due to the excellent return to Aialik Lake (Table 1 and Appendix Table 22).

The sockeye return to Bear Lake was fished for the second consecutive year, on a seven day per week basis from May 28 until June 20, but only 264 fish were caught by seiners. The total return was below the pre-season projection and fish did not "show" as well in saltwater as they did the previous year. The escapement goal was increased for Bear Lake due to readoption of the Bear Lake Management Plan by the Alaska Board of Fisheries. Just over 1,100 sockeye were passed through the weir into Bear Lake (Table 4) and an additional 2,741 fish were taken in the personal use dipnet fishery below the weir.

Sockeye salmon began arriving in Aialik Lagoon in good numbers in late June which indicated the beginning of another strong return. On June 26, 5,500 sockeye were estimated to be schooled in the lagoon, but due to the cold water from the late snow "melt-off", the fish would not move into the lake. A short 10 minute opening was allowed on July 1 from 9:00 until 9:10 a.m. Ten boats decided to "co-op" the opening and succeeded in harvesting over 9,000 sockeye.

The lagoon continued to build during the next 10 days, but no fish would move into the lake. A July 12 survey indicated 10-12,000 fish schooled in the lagoon with only 250 in the lake. The second lagoon opening was allowed on July 12 for 10 minutes from 9:00 until 9:10 a.m. and resulted in a harvest of 6,200 sockeye. A third opening was allowed on July 25 for one hour after 4,200 sockeye had finally moved into the lake. Seven boats caught an additional 5,300 sockeye, but over 6,600 pink salmon were taken during the same opening.

After the third opening, the Aialik Bay subdistrict was closed to fishing due to the large number of pink salmon taken during the opening and suspected illegal fishing near the pink salmon stream in Quicksand Cove. A July 27 survey indicated the sockeye escapement had reached 5,900 and, while large numbers of fish were observed in the lagoon, species identification was not possible. A fourth opening in the lagoon was allowed on July 29 for one hour from 8:00 until 9:00 a.m. Eight boats caught 5,600 fish, but 5,000 were pink salmon. The final escapement of 8,000 sockeye was considered excellent (Table 4).

Pink and Chum Salmon

The Eastern district, primarily Resurrection Bay, has always been predominantly an even numbered year pink salmon producer. The 1985 harvest of 92,403 pink salmon was a record odd-year harvest surpassing the 1955 odd-year harvest of 55,994 by 65 percent. The chum salmon harvest of 5,146 was almost three times the average for the district (Appendix Table 22).

The harvest, which was 3 1/2 times the average for the district (Appendix Table 22), was the result of extremely strong returns to Thumb Cove and Tonsina Creek in Resurrection Bay. The first opening in Resurrection Bay was a 12 hour period on Tuesday July 23. Only waters between the latitudes of Caines Head and Tonsina Creek were opened to reduce potential conflicts with recreational users in the outer portion of the bay and to protect pink salmon bound for Bear Creek, which usually school in the upper portion of the bay.

Schools of pink and chum salmon increased quickly during the next several days and over 8,000 fish were schooled along beaches in Thumb Cove on July 27. The chum salmon escapement in Tonsina Creek reached 2,400 fish and a second 12 hour opening was allowed on July 30. The harvest of 1,400 chum salmon was double the first period catch as the bay was opened from Caines Head to Lowell Pt. and the pink salmon harvest of 17,000 was just 3,000 fish higher than the first opening.

Large schools of pink salmon began accumulating near Tonsina Creek in early August, as this return is later than most other returns in the bay, and over 9,000 pinks had accumulated in Thumb Cove again by August 3. A third 12 hour opening was allowed on August 6 and was eventually extended an additional 12 hours until 6:00 a.m. Wednesday, August 7 as catches in both areas remained strong. Marker adjustments were allowed in Thumb Cove to maximize the pink salmon harvest and over 40,000 pink salmon were taken during this opening.

Due to the management plan developed to allow commercial harvests of pink and chum salmon, while preventing conflict with recreational fishermen and the Seward Silver Salmon Derby, no additional openings were or could be allowed.

This year proved to be one of the exceptions that most policies do not take into account. Late run timing of seven to ten days resulted in large accumulations of pink salmon at both Thumb Cove and Tonsina Creek after the start of the derby. Pink salmon escapements at both streams resulted in over 50,000 excess in the spawning escapements and a significant economic loss to the commercial fishery (Table 2). Odd year returns to Bear and Salmon Creeks have been increasing since 1981 and this year's escapements were considered excellent (Table 2).

Aialik Bay had two strong pink salmon returns in 1985 which produced a total harvest of just under 18,000 fish. Over 2,100 chum salmon were also harvested from numerous small returns. The majority of the pink salmon were harvested during the last two Aialik Lagoon openings for sockeye salmon on July 25 and 29. Over 11,600 pink salmon were taken during these two openings and, with an escapement of less than 2,400 on August 2, no additional openings were allowed. The final escapement of 9,400 was considered excellent (Table 2). The remainder of the harvest came from a return to Quicksand Cove located south of Aialik Lagoon and escapements of both pink and chum salmon appeared to be excellent.

SUBSISTENCE FISHERY

Kachemak Bay

The Kachemak Bay subsistence set gillnet fishery which targets on coho salmon was open from August 16 until September 21. A total of 316 permits were issued, a drop of 14 percent from the previous year (Table 7). The most notable drop in numbers of permits and percentage by area were from Anchor Point, Ninilchik, Kenai, Soldotna and Anchorage. The decrease is believed to be directly related to the existence of the coho gillnet subsistence fishery along the eastern Cook Inlet beaches in 1985.

The total harvest of 3,624 fish consisted of 93 percent coho salmon. Pink salmon catches were low due to weak returns in Kachemak Bay and were only one quarter of the 17 year average (Table 10). The harvest was 14 percent above average and coho escapement to Clearwater Slough in Fox River was considered minimally acceptable at 325 fish on September 6.

English Bay-Port Graham

The sockeye salmon return to the English Bay Lake system was extremely weak in 1985 and resulted in extremely poor harvests in both the subsistence and commercial set gillnet fisheries. Subsistence catches during the month of May were less than one third of the previous years (Tables 11 and 12) and with the escapement to the lakes lagging, the commercial set gillnet fishery was closed

on June 15 and the subsistence fishery was extended. Sockeye escapements did not increase as expected and the sport and subsistence fisheries were closed on June 22. The final sockeye salmon escapement of 5,000 was only half of the lower end of the escapement range of 10,000-20,000 fish.

The commercial set gillnet fishery was finally reopened on July 10 after it was determined that no additional sockeye escapement was being achieved with the closure, but the recreational fishery for sockeye remained closed. The fall fishery on coho salmon was uneventful and catches in both villages appeared to be similar to past years. It is important to note that the majority of the coho salmon harvest and a good portion of the sockeye salmon harvest are taken through a sport, rod and reel fishery in both villages. Data contained in Tables 11 and 12 reflect only catches made by set gillnets.

Resurrection Bay

A subsistence gillnet fishery for sockeye salmon was allowed in Resurrection Bay for the first time since the early 1970's. The fishery was prompted by a recent court decision on subsistence fisheries and 43 permits were issued for the fishery. Only six permits were fished during the season, which ran from May 28 until June 30, and only four king, 43 sockeye and six chum salmon were harvested.

A personal use dipnet fishery was allowed on the Bear Lake sockeye return for the first year. Sockeye salmon, which passed through the commercial seine and subsistence set gillnet fisheries in Resurrection Bay and which were in excess of the 1,000 fish escapement goal, were harvested by dipnets below the Bear Creek weir. The fishery was a tremendous success and a total of 2,741 sockeye salmon were caught.

ENHANCEMENT AND REHABILITATION

Tutka Hatchery

The Tutka Hatchery released a record 23.5 million pink fry and 26,000 chum salmon fry in 1985. The short-term-rearing program was shortened to only two weeks due to a lack of adequate food.

The 1985 return to the Tutka Lagoon facility totalled 528,371 pink salmon. Approximately 463,600 of these fish were harvested in the commercial fishery, representing 90 percent of the total Southern district pink salmon catch and 38 percent of the total Lower Cook Inlet pink salmon catch. The ocean survival rates were lower than normal due to the unsuccessful feeding program and averaged only 2.7 percent. A record egg take occurred in 1985 with approximately 32 million eggs taken.

Hatchery broodstock was taken from the middle to latter portion of the return and resulted in very low holding mortalities for the second year in a row. This practise of "cleaning out" the lagoon of early run fish should be continued for the pink salmon returns. When the hatchery shifts its production to chum salmon, returns should be monitored, concerning the high percentage of males in the early portion of the run, and the same harvest technique used prior to chum brood stock collection. Chum returns, which will begin in 1986, should also be monitored as to the fleet's harvest rate of adults outside the lagoon. Chum salmon often hold and mill in a fishing district rather than readily moving into a spawning stream and, as such, are much more susceptible

to harvest. This trait must be watched closely to be able to achieve adequate hatchery brood stock in the future.

Leisure Lake

The sockeye salmon return to the Leisure Lake stocking project was again a big success producing a total return of 65,930, of which 61,530 were taken in the commercial fishery. This single project accounted for 21 percent of the entire Lower Cook Inlet ex-vessel value of salmon in 1985. Ocean survival rates were still phenomenal and were 33 and 12 percent for two different age groups in the return.

Fry stocking levels were kept at 2.1 million in 1985 and the lake fertilization program shifted to 100 percent liquid fertilizer, rather than a pelletized form. Much better plankton blooms were observed and fry growth appears to be much greater. Only 178,000 smolt were estimated to have left the lake in 1985 of which 74 percent were age II smolt. Age II smolt averaged 75.1 mm in length and 3.4 g in weight which was similar to the previous year. Age I smolt however, averaged 61.9 mm and 1.7 g, which were increases from the previous year of 15 and 55 percent, respectively.

Chenik Lake

Chenik Lake was still experiencing the affects of the 1981 lake stocking of one million sockeye salmon fry. This year's return of 24,100 fish was slightly below the 1984 return of 33,700. Commercial seiners harvested 10,600 fish and 3,500 fish reached the lake. Due to a velocity barrier at the ocean,

it was estimated that a minimum of 10,000 additional fish perished and were not able to reach the lake to spawn.

Caribou and Seldovia Lake Coho Stocking

Seldovia and Caribou Lakes were stocked with coho salmon fry for the second year in a row. A total of 139,300 and 82,000 fry were released in Caribou and Seldovia Lakes, respectively.

COMMERCIAL HERRING FISHERY

INTRODUCTION

The Lower Cook Inlet area, exclusive of the Southern district, was opened to commercial seining for sac roe herring for the first time since 1979. The Outer, Eastern and Kamishak Bay districts were divided into seven management areas with pre-season harvest levels of 150-200 tons each, as was presented to the Board at the December 1985 meeting (Figure 7-9). These areas were opened to fishing on April 20 and areas were closed after the harvest levels in a particular area were achieved.

Overall the fishery was considered very successful (Figure 10). The harvest of 1,364.78 tons, concentrated primarily in the Kamishak Bay district, was 33 percent above average for the Lower Inlet (Table 19 and Figure 10). Harvests by area are listed below along with estimated harvest rates for the three Kamishak Bay management areas:

Area	Vessels Delivering	Harvest in Tons	Minimum Biomass Estimate	Harvest Rate
1	4	160.53		
2	5	72.66		
5	7	60.55	400	15.1%
6	13	685.55	9,510	7.2%
7	17	385.49	3,410	11.3%
Total		1,364.78		

Roe recovery rates were excellent in areas 6 and 7 and ranged from 9.5 - 15 percent. Roe percents dropped to 8-9 percent in area 5 due to younger age fish, spawnouts and immature roe and were lower throughout the Outer and Eastern districts harvests due to younger age fish (Figures 11-13). Age 6 and age 8 herring made up the majority of the Lower Cook Inlet harvest (Figure 11). Age class composition was considerably different between the Kamishak district harvest and those fish taken in the Outer and Eastern districts (Figures 12 and 13 and Tables 13-18). Prices paid averaged \$650.00 for 10 percent roe recovery and the estimated value of the 1985 harvest was approximately \$976,000.

OUTER AND EASTERN DISTRICTS

The first harvest occurred on April 20 in area 2 by a seiner headed to Prince William Sound. Catches in the remainder of the Areas 1 and 2 did not occur until after the fleet had returned from the Prince William Sound herring fishery. The harvest level in Area 1 of 160.53 tons was taken in a 2-3 day period from Resurrection Bay and Area 1 was closed on May 2. Additional tonnages were taken on May 3-5 from Area 2, but catches were not reported until mid June and fish tickets were incomplete as to the catch area. The total catch for Area 2 reached 72.66 ton. No harvests occurred in Areas 3 and 4 as no major concentrations of herring were observed. Eight boats participated in the harvest in the Outer and Eastern district.

Only 250 tons of herring were observed during aerial surveys of the Outer and Eastern districts between April 22 and June 6. Approximately 600 tons of fish were observed in the West Arm of Nuka Bay on June 21 but it was never confirmed that the fish were herring. Spawning was only observed during one survey on May 20.

	<u>Observed Tonnage</u>	<u>Observed Spawning</u>
Harris Bay	= 10 tons	South end of Nuka Island
Aialik Bay	= 100 tons	Surprise Bay (Nuka)
Day Harbor	= 60 tons	Moonlight Bay (Nuka)
Resurrection Bay	= 40 tons	Thunder Bay (Nuka)
Two Arm Bay	= 4	

The harvest in Resurrection Bay was comprised of primarily three, four and five year old fish with a fairly significant percentage of two year old fish (Table 13). The age class composition of the Two Arm Bay harvest was similar

to Resurrection Bay, but four year old fish definitely dominated the harvest (Table 14). Figure 13 summarizes age class composition for the harvest in the Outer and Eastern districts.

KAMISHAK BAY DISTRICT

The early run of herring in the southern reef area of the Kamishak district did not show in late April as they have during the past five years. The first herring were observed in Bruin Bay on April 25, but by the time a fleet of 5 seiners arrived on April 27 extensive spawning was occurring throughout the bay. No spotter plane was available until late evening April 27 so few sets were made and only 2.0 tons were harvested.

Herring began showing on the early morning flood tide on April 28 near the Rocky Cove reef. Total tonnage was estimated at 600-700 tons. Six boats harvested 120 tons, but an additional 40-50 ton were wasted as inexperienced seiners dried up nets killing fish and then tore their nets on the reefs losing the fish. Area 6 was closed at 7:30 p.m. April 28, except that the area south of Contact Point in Area 6 was left open for an additional 100 ton harvest after 500 tons of herring were spotted during an afternoon survey.

Fishing effort shifted to Iniskin Bay and a total of 182 tons were harvested on April 29-30. The biomass in Iniskin built throughout the fishery with 100 tons estimated on April 28, 240 ton estimated on April 30, after 100 tons had been harvested, and 600 tons estimated on May 2 after the area was closed. By morning of May 3 the biomass had reached 1,150 tons and had increased to 1,755 tons by late evening.

Area 7 was closed at midnight on April 30 and on May 1 the fleet moved south

to take the remaining 100 tons near Contact Point. Reports came in of large schools of herring from Bruin Bay to Rocky Cove and a survey of the area at 7:00 a.m. indicated 7,000 ton of herring present which were not there the previous afternoon. The fishery at Contact Point was cancelled and the fleet was moved to the Kerschner Lake area for a special opening to harvest approximately 500 tons from this new biomass. A 30 minute opening was planned for the nine boats present, from 10:00 until 10:30 a.m., but the fishermen all decided to "co-op" the fish, due to limited tender capacity, and the fishery was extended until 3:10 p.m. when it was estimated that the 500 ton harvest had been reached. Area 6 was closed to fishing at that time.

The biomass in the Iniskin Bay area continued to build and on May 6 was estimated at 3,000 tons. Due to complaints about the short notice opening on May 1, the fleet had been put on 24 hour notice for any further openings even though area 5 was still open. The fleet was put on a one hour notice at 1:00 p.m. on May 7 for an opening in Area 7 to harvest 200 tons. A storm blew up on May 6 and 7 and at 10:00 a.m. on May 7 only 400 ton of herring were present in Iniskin Bay. An aerial survey at 1:00 p.m. indicated an additional 500 ton were present in Cottonwood Bay west of Iniskin and large schools were observed on sonar in the Iniskin Bay trench. A 30 minute flare opening was announced for Iniskin Bay from 2:15 - 2:45 p.m. May 7 and the opening in Cottonwood Bay area was made by a countdown on the VHF radio. The total number of vessels was estimated at 26 and the harvest ended up at 204 tons. Most of the sets were released in Cottonwood Bay due to low roe recoveries resulting from immature roe. Roe recoveries in Iniskin Bay fish were good, although they were below earlier harvests in late April.

A few boats harvested 61 tons from Area 5 near McNeil River on May 11-12 but roe recoveries were only 8 - 8.5 percent. No biomass estimates were made of this area, but extensive spawning was observed throughout the area. The entire shoreline from McNeil River to Rocky Cove and then Cottonwood and Iliamna Bays had very heavy spawning throughout the April 27-May 14 time period and total spawning was estimated at 40-45 miles. This was the second year in a row of heavy spawning throughout the district. The large tonnage that appeared on May 1 spawned the morning of May 2 and if a 24 hour notice had been given to the fleet, the entire harvest would have been lost.

The total biomass in the Kamishak Bay district was estimated at 13,320 tons, which included the harvest of 1,131.59 tons for a harvest rate of 8.50 percent. The harvest was 44 percent below average, but was considered excellent since the area had been closed for five years and that the pre-season estimated harvest was 450-600 tons. Roe recoveries in the Kamishak Bay fisheries varied from 9-15 percent with 11-11.5 percent being about average. The roe recoveries in Cottonwood Bay ran 6 percent and below for the 135 tons taken from there on May 7 and the May 7 Iniskin Bay harvest ran 9-9.5 percent roe, with an additional 3-4 percent immature roe.

<u>Biomass Estimates by Area</u>		
Bruin Bay	=	650 tons
Contact Pt.	=	1,700 tons
Rocky Bay to Kerschner Lake	=	7,160 tons
Ursus Cove	=	220 tons
Iniskin Bay to Oil Bay	=	3,190 tons
Southern Reef area	=	400 tons
(Estimate from pilots)		-----
		13,320 tons

Age class composition data are presented in Tables 13-18 and Figure 12. The harvests from April 27-30 consisted primarily of six year old and older herring with the percentage of five year old fish increasing throughout the

time period. The May 1 harvest near Kerschner Lake contained more four and five year old fish than the late April harvest at Rocky Cove just several miles northeast (Tables 16 and 17). A definite shift in age class composition was noticed between the early and late fisheries in Iniskin Bay (Table 18). Four, five and six year old fish dominated the May 7 harvest, whereas, over 80 percent of the April harvest were six year old and older fish. The May 12 fishery near McNeil River had age class composition similar to the Iniskin Bay harvest of May 7 with some two and three year old fish appearing in the harvest (Tables 15 and 18).

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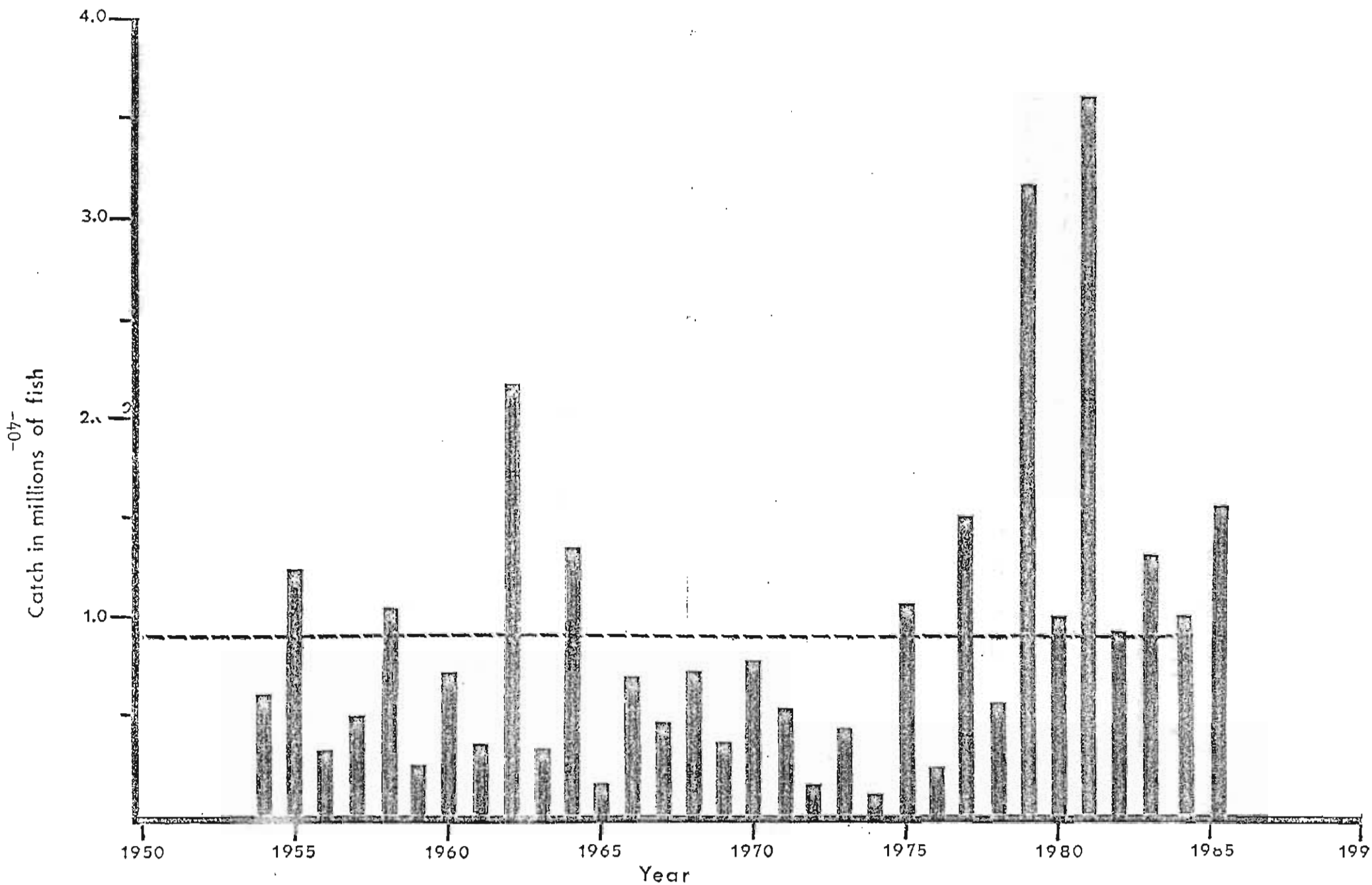


Figure 2 . Lower Cook Inlet total salmon catch, 1954-

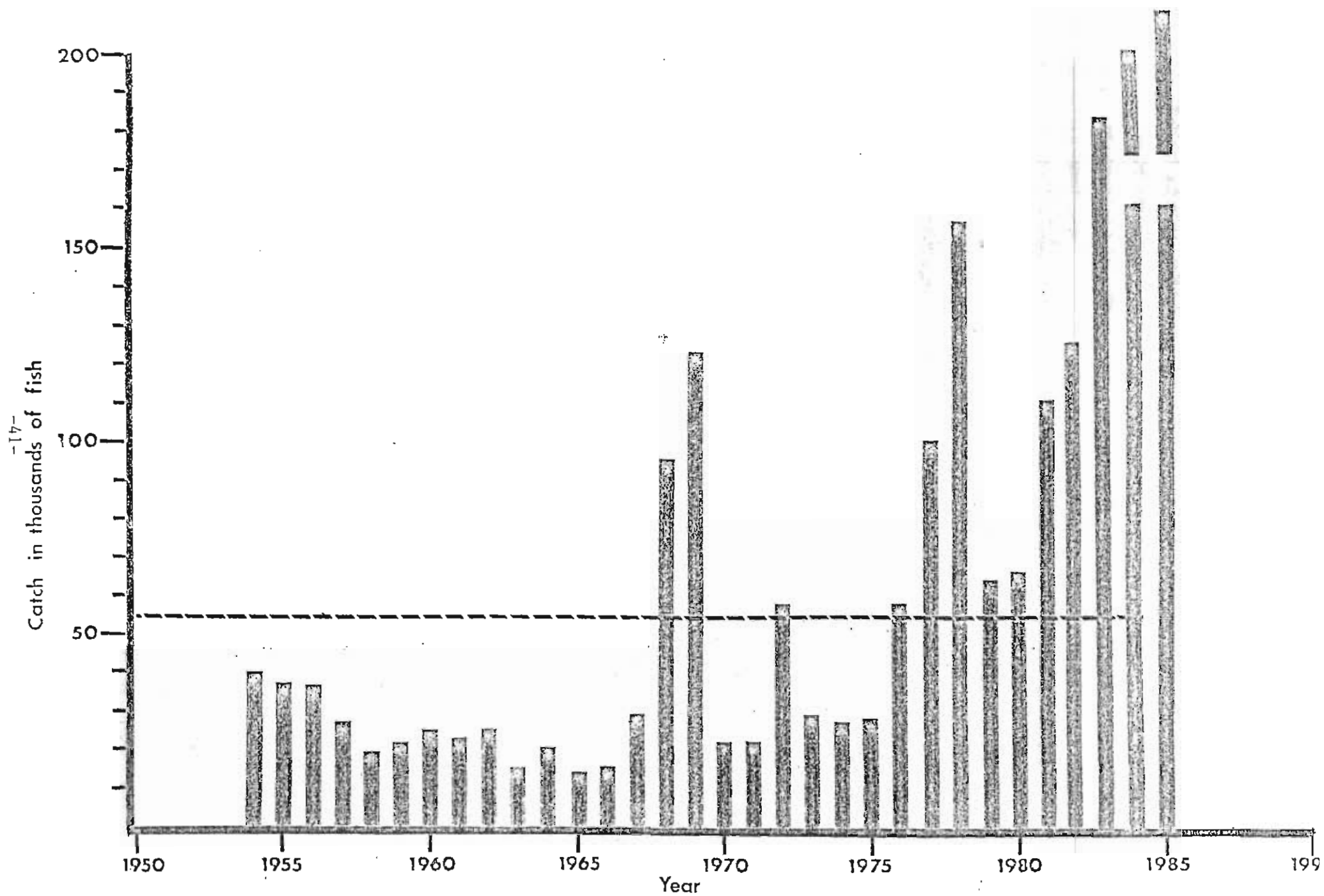


Figure 3. Lower Cook Inlet sockeye salmon catch, 1954 - 1985

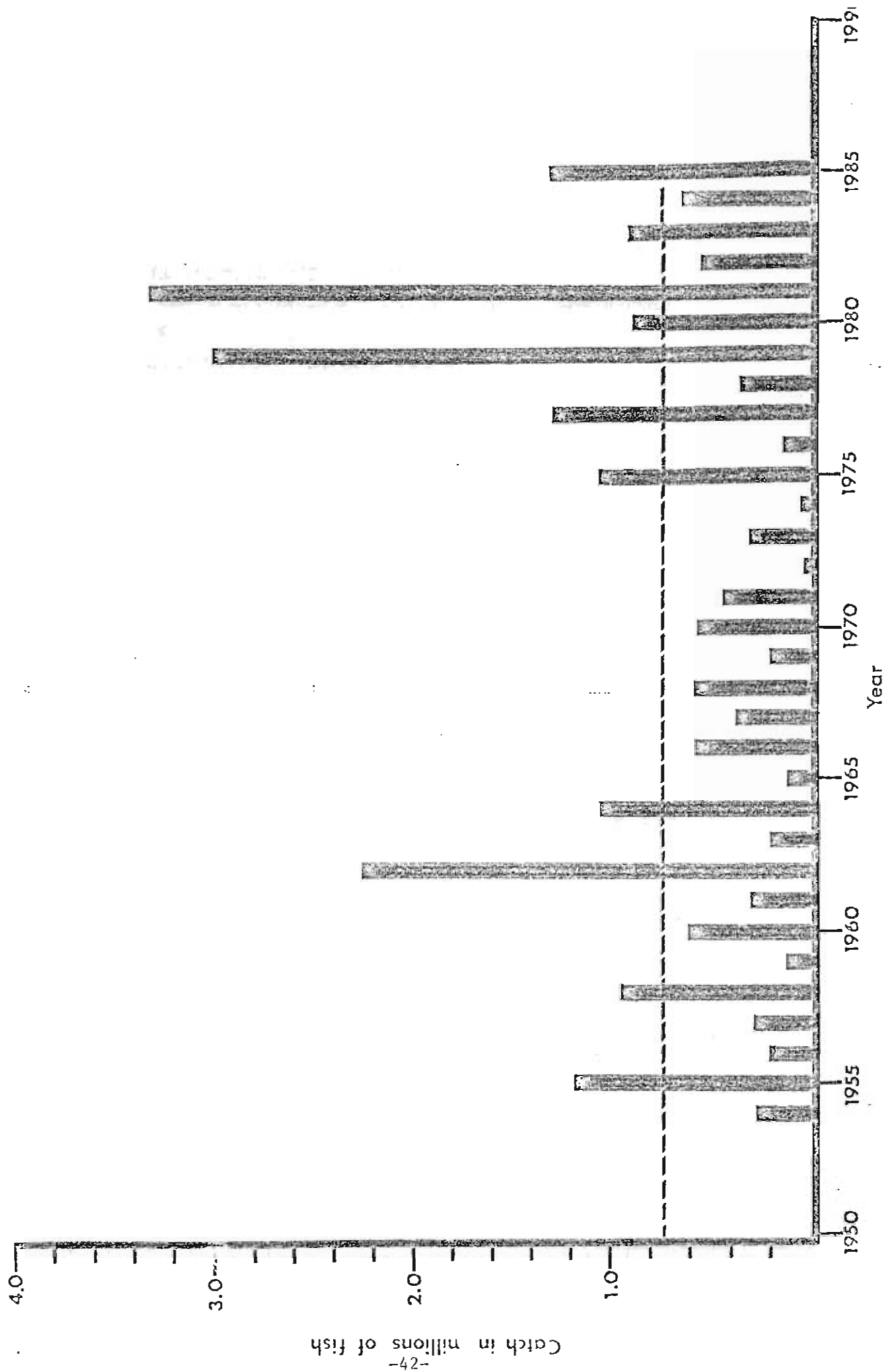


Figure 4. Lower Cook Inlet pink salmon catch, 1954 - 1991

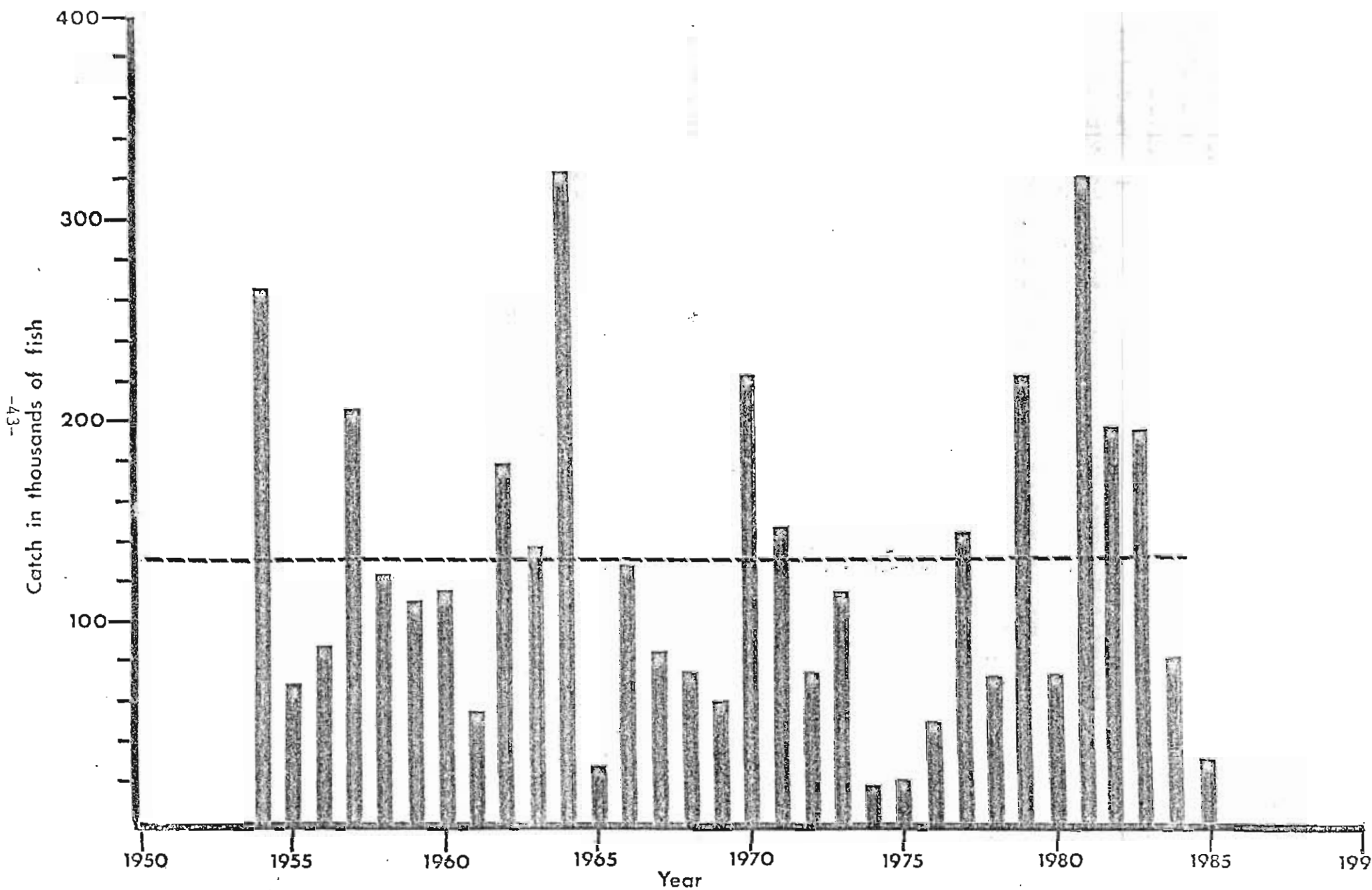


Figure 5. Lower Cook Inlet chum salmon catch. 1954 -

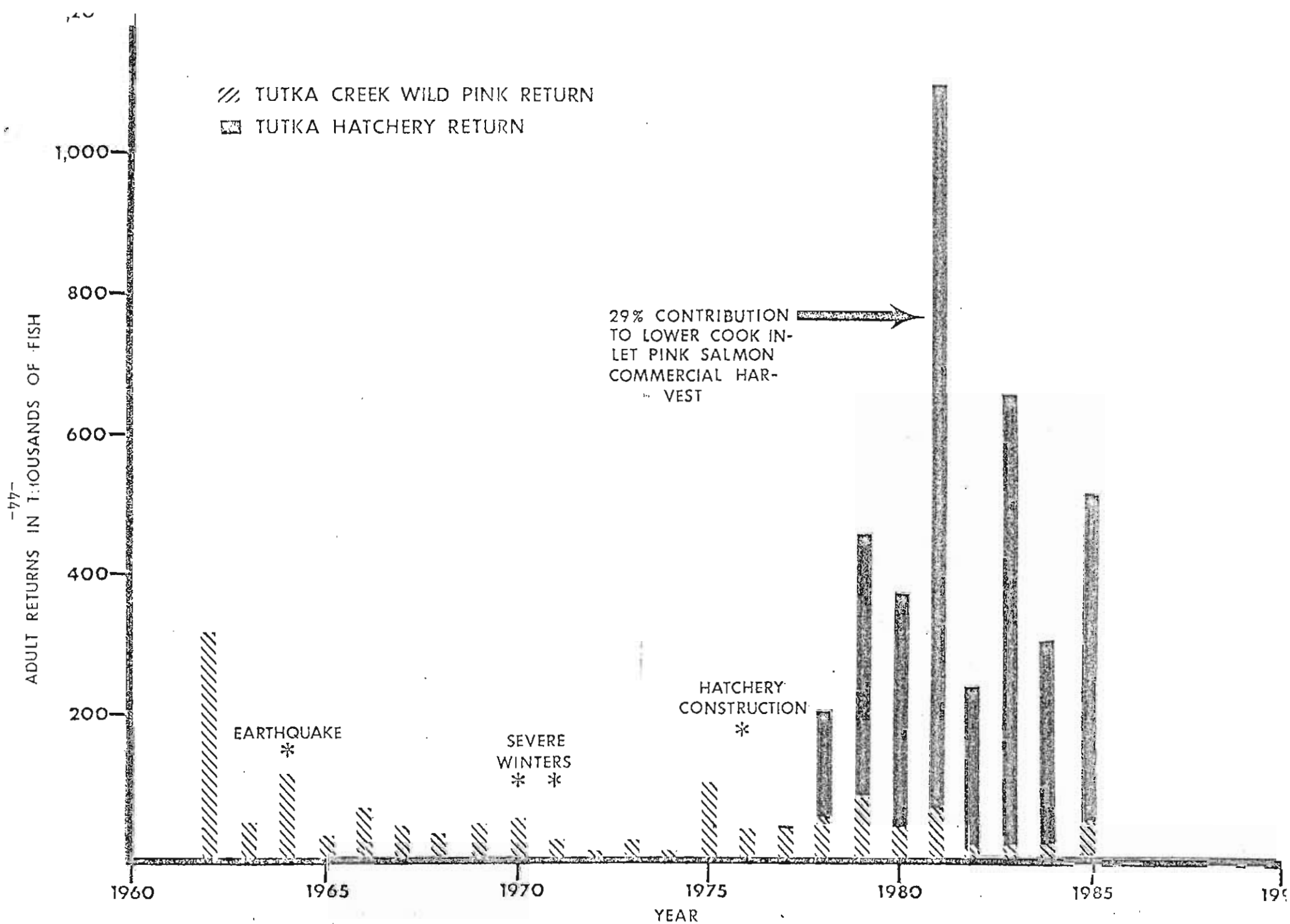


Figure 6 . Tutka Creek wild pink salmon returns with recent years' hatchery contribution.

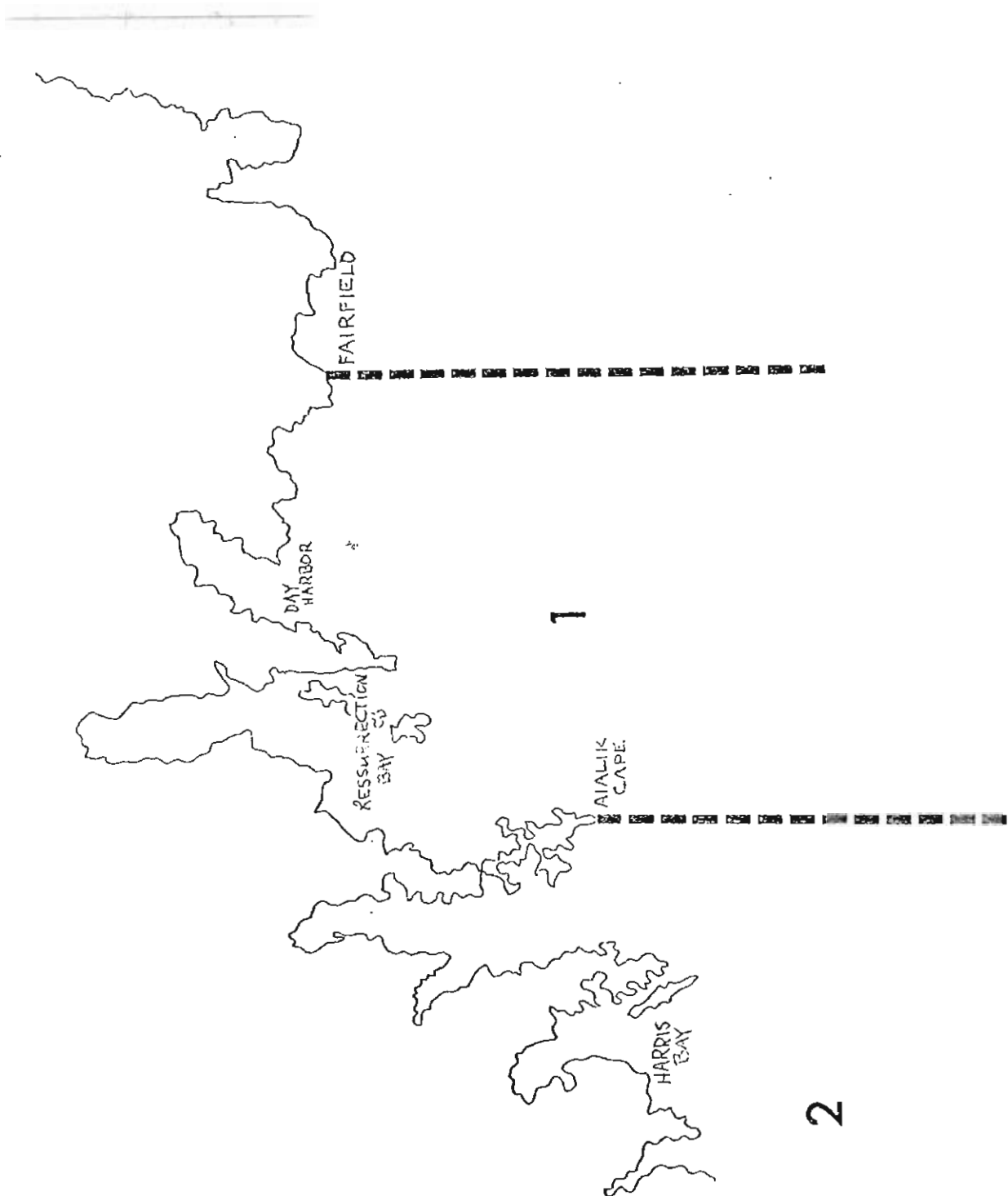


Figure 7. Herring management areas 1 and 2.

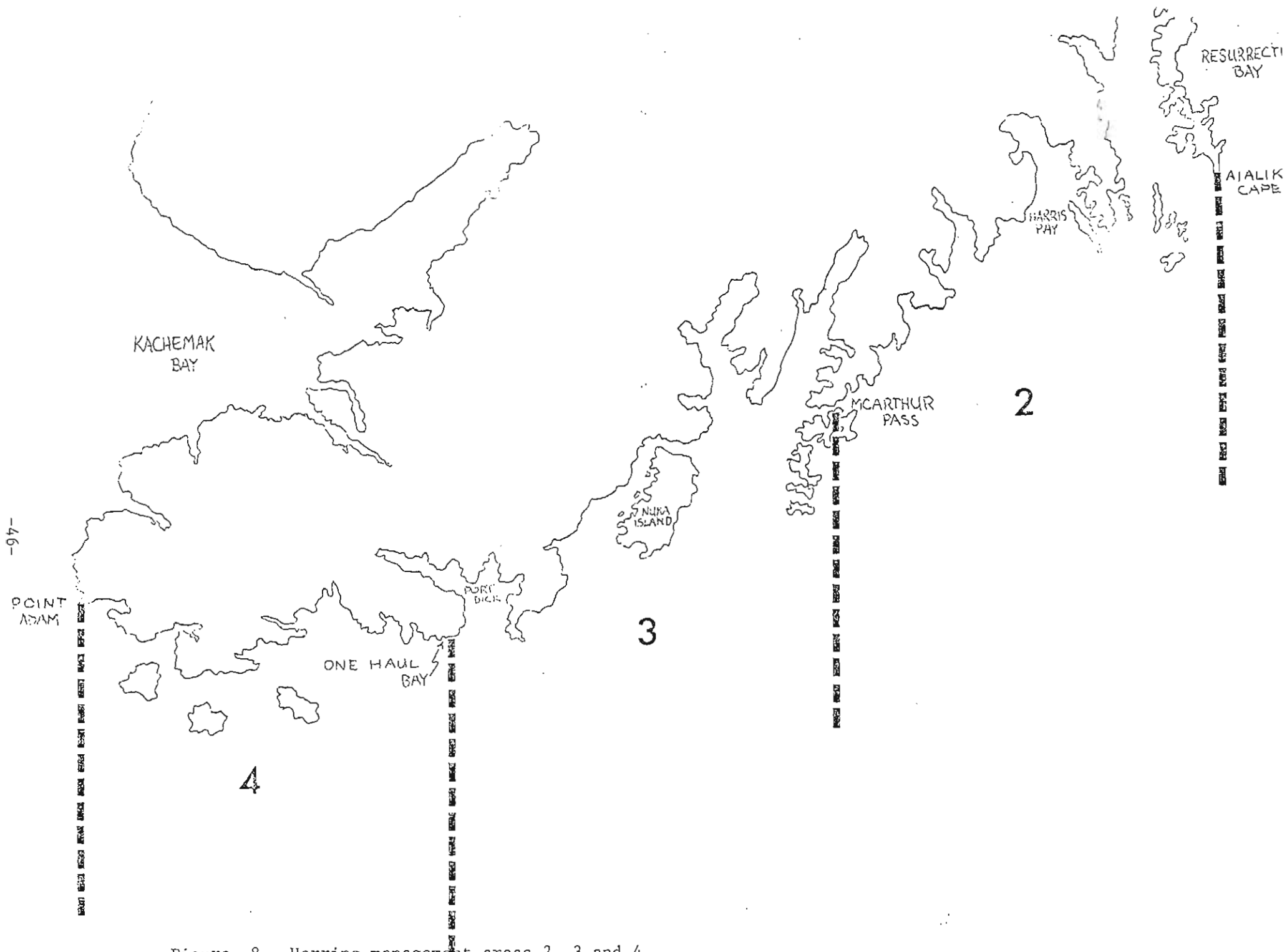


Figure 8. Herring management areas 2, 3 and 4.

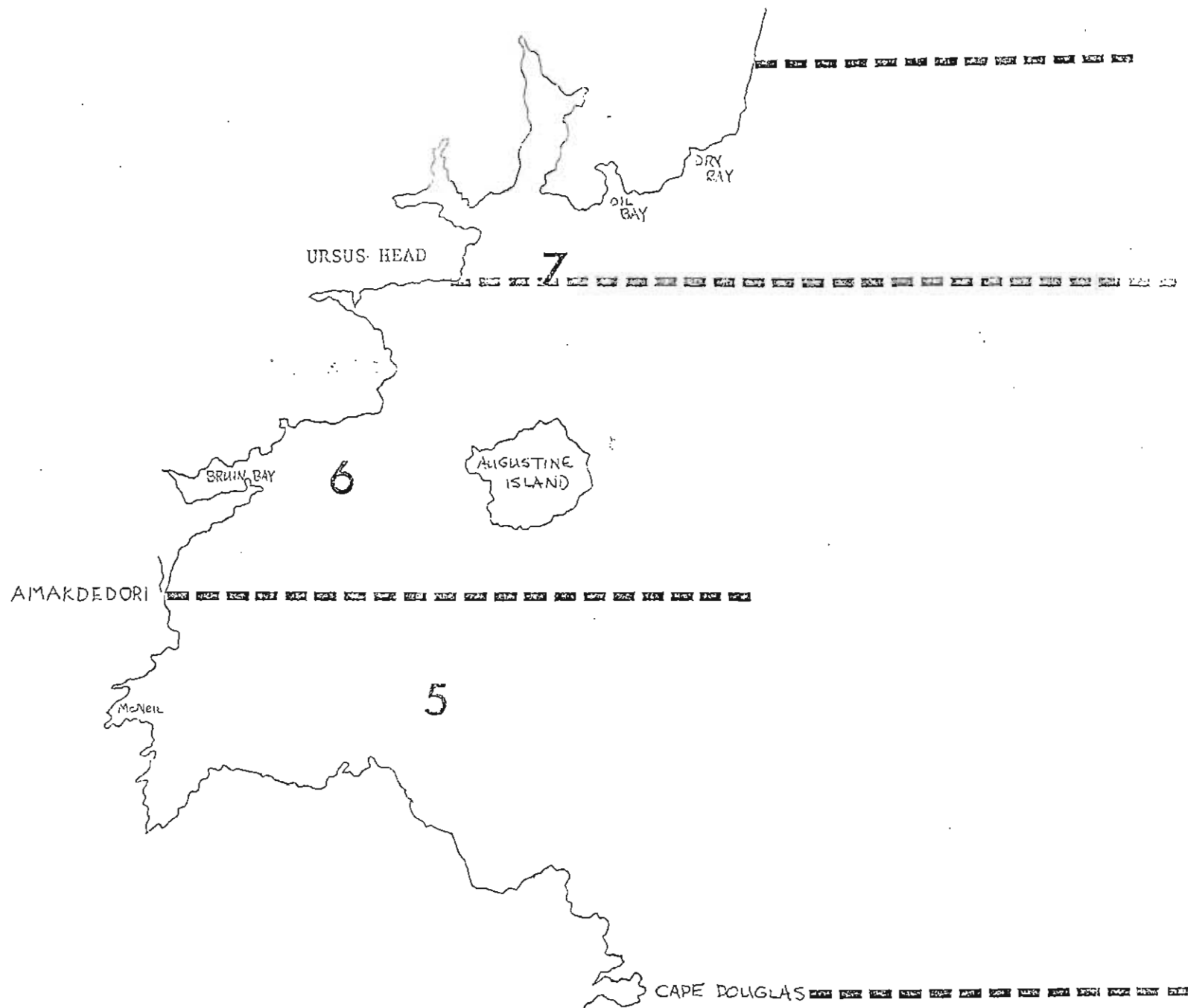


Figure 9. Herring management areas 5, 6 and 7.

LOWER COOK INLET

Herring Sac Roe Harvests

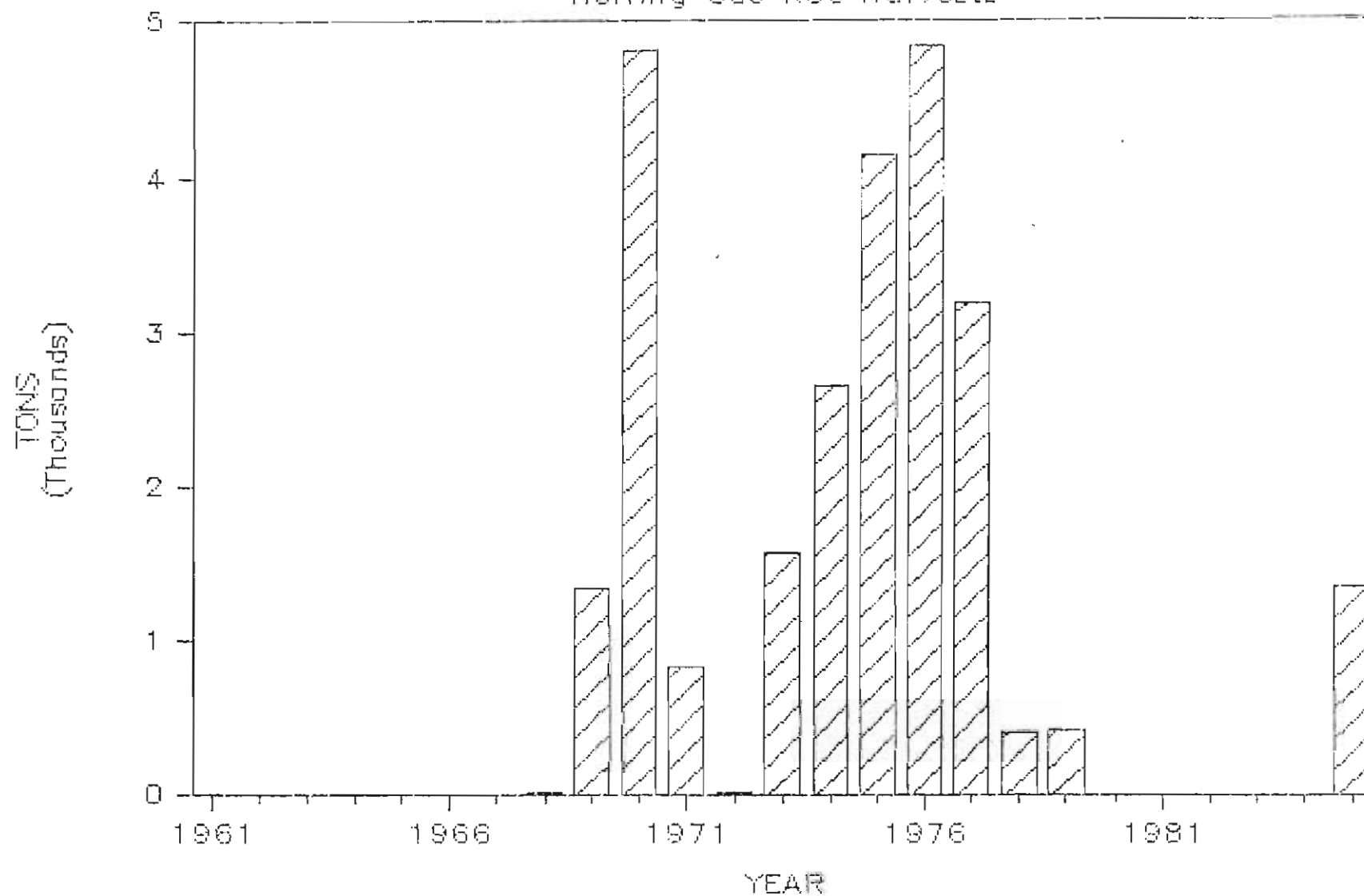


Figure 10. Lower Cook Inlet herring sac roe harvests.

LOWER COOK INLET

Herring Age Class Composition

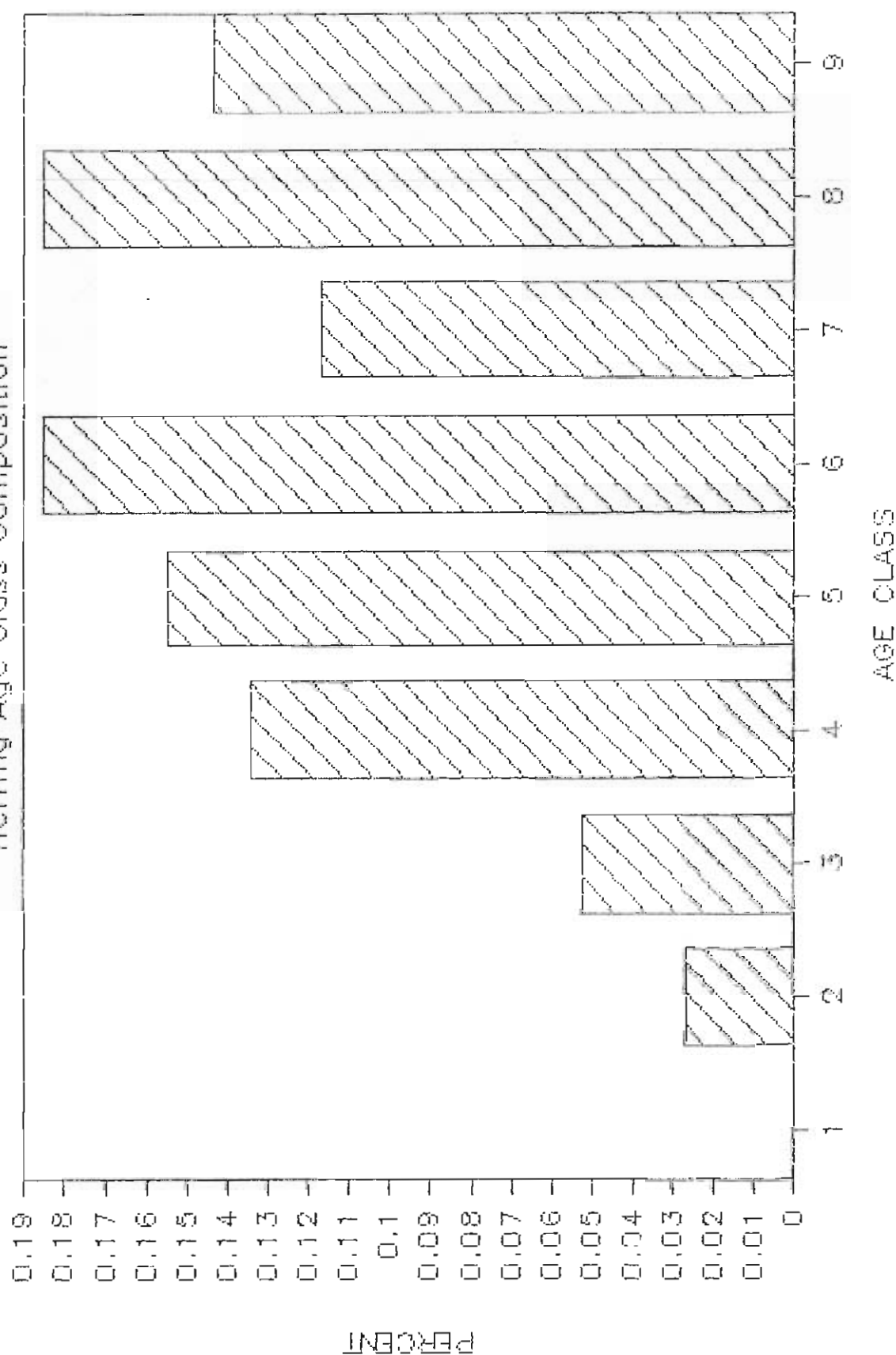


Figure 11. Lower Cook Inlet herring age class composition, 1985.

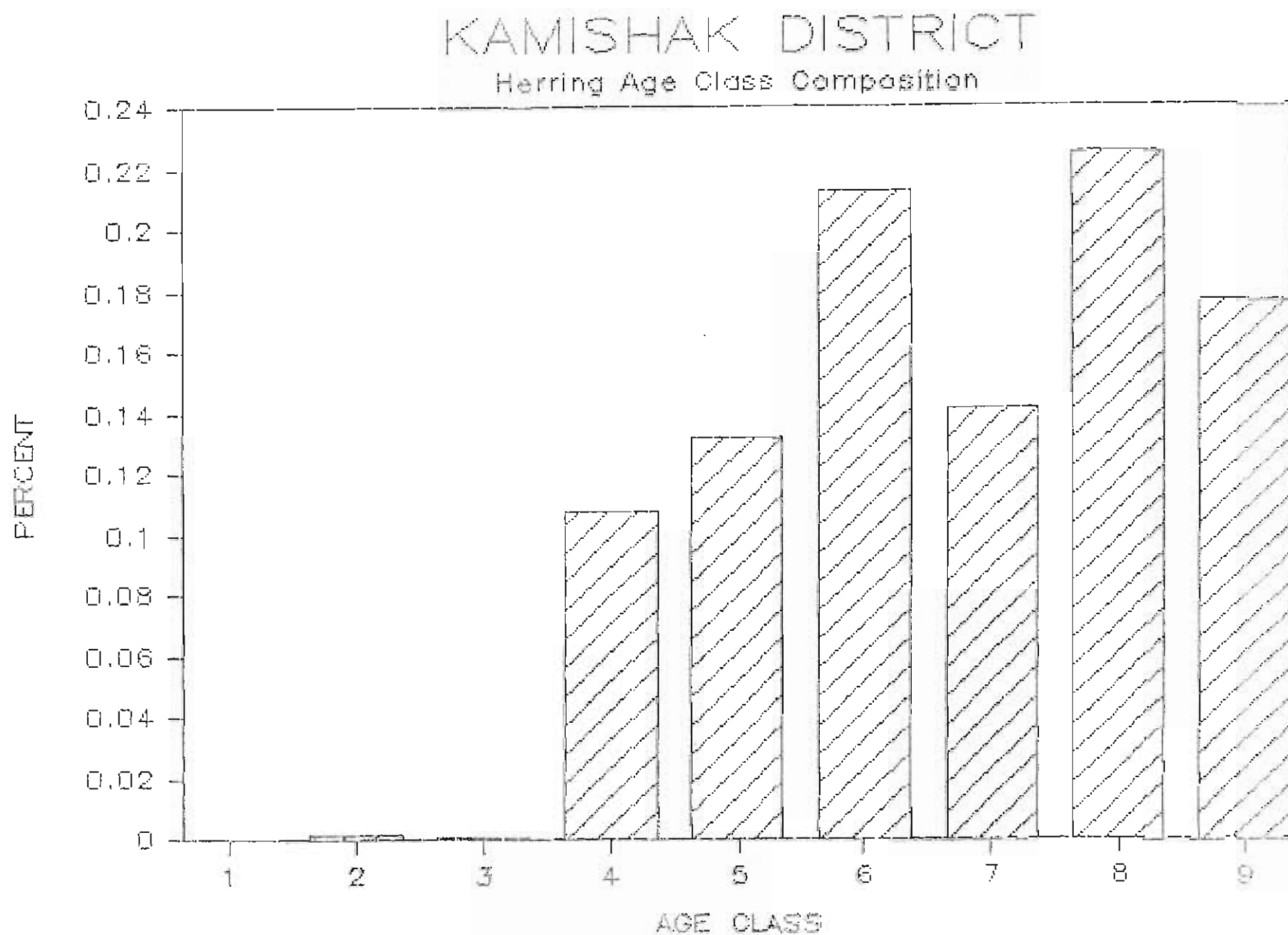


Figure 12. Kamishak district herring age class composition, 1985.

OUTER—EASTERN DISTRICT

Herring Age Class Composition

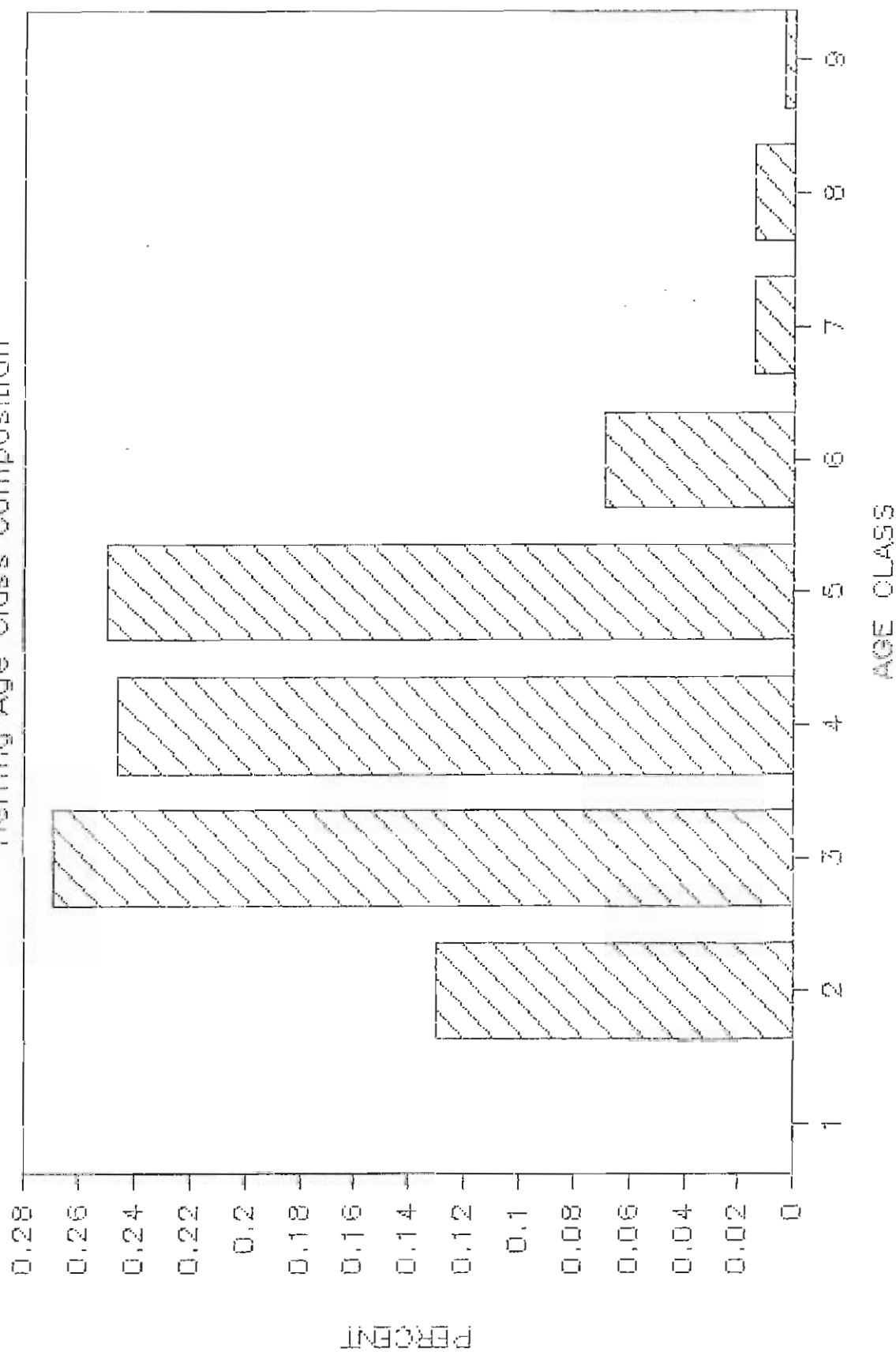


Figure 13. Eastern and Outer district herring age class composition, 1985.

Table 1. Lower Cook Inlet salmon catch by species, district and gear, 1985.

	KING	SOCKEYE	COHO	PINK	CHUM	TOTAL
	----	-----	-----	-----	-----	-----
SOUTHERN DISTRICT						
Set Net	958	23,188	3,908	22,898	4,217	55,169
Seine	49	60,961	350	496,000	1,292	558,652
Total	1,007	84,149	4,258	518,898	5,509	613,821
OUTER DISTRICT	19	91,957	3,210	618,222	11,844	725,252
KAMISHAK DISTRICT	6	78,250	2,024	194	8,139	88,613
EASTERN DISTRICT	11	24,338	835	92,403	5,146	122,733
TOTAL	1,043	278,694	10,327	1,229,717	30,638	1,550,419
30 Year Average	376	70,174	7,495	753,550	124,893	956,488

Table 2. Lower Cook Inlet escapement goals, average observed, and 1985 escapements of pink salmon.

SOUTHERN DISTRICT	ESC. GOAL	AVE. ESC. 1/	1985 ESC.
Humpy Creek	25,000 - 50,000	53,500	117,000
Tutka Lagoon	6,000 - 10,000	12,200	14,000
Seldovia Creek	25,000 - 35,000	38,400	22,800
Port Graham River	20,000 - 40,000	14,800	26,300
China Poot Bay	5,000	9,000	1,900
Barabara Creek	18,000 - 24,000	5,000	1,600
Total	99,000 - 164,000	132,900	183,600
OUTER DISTRICT			
Port Chatham Streams	10,000 - 15,000	10,000	8,900
Rocky River	50,000	19,800	12,100
Windy Left River	30,000 - 50,000	15,500	8,900
Windy Right River	10,000	4,700	5,400
Port Dick Creek	20,000 - 100,000	46,800	65,300
Island Creek	12,000 - 18,000	6,900	27,900
South Nuka Creek	10,000	13,000	3,600
Desire Lake Creek	10,000 - 20,000	10,900	62,500
James Lagoon	5,000 - 10,000	7,100	9,000
Total	157,000 - 283,000	134,700	203,600
KAMISHAK DISTRICT			
Big Kamishak River	20,000	31,000	0
Little Kamishak River	20,000	22,000	1,600
Amakdedori Creek	5,000	16,000	1,000
Bruin Bay River	25,000 - 50,000	74,000	3,500
Sunday Creek	10,000	11,000	11,400
Brown's Peak Creek	10,000	10,000	7,000
Total	90,000 - 115,000	164,000	24,500
EASTERN DISTRICT 2/			
Aialik Lagoon	5,000	5,500	9,400
Bear Creek	5,000	9,800	4,100
Salmon Creek	10,000	16,100	2,100
Mayor Creek	2,000	3,000	500
Clear Creek	2,000	1,300	700
Thumb Cove	4,000	3,300	14,500
Humpy Cove	2,000	3,000	5,000
Tonsina Creek	5,000	3,900	48,200
Total	35,000	46,500	83,900
LOWER COOK INLET TOTAL	381,000 - 597,000	478,700	495,600

1/ Average escapement figures are based on weir counts, ground and aerial surveys conducted between 1951 and 1982. For many streams only several years data exist.

2/ Average escapements for pinks are for even years only.

Table 3. Lower Cook Inlet escapement goals, average observed and 1985 escapements for chum salmon. 1/

OUTER DISTRICT	ESCAPEMENT GOAL (RANGE)	AVE. OBS. ESCAPE.	1985 ESCAPE.
Dogfish Lagoon	5,000 - 10,000	6,400	4,900
Port Chatham (streams)	*	1,500	100
Windy Right River	*	1,500	500
Windy Left River	*	1,300	400
Rocky River	20,000	9,000	2,500
Head End Creek	4,000	5,200	1,000
Island Creek	10,000 - 15,000	9,800	9,100
Middle Creek	*	2,000	-
Petrof River	2,000 - 5,000	3,000	200
	41,000 - 54,000	39,700	18,700
KAMISHAK DISTRICT			
Silver Beach (streams)	*	4,000	1,000
Main Left (streams)	5,000 - 10,000	6,000	0
Big Kamishak River	20,000	14,900	6,000
Little Kamishak River	20,000	12,000	4,500
McNeil River	10,000 - 20,000	24,500	9,500
Cottonwood Creek	10,000	6,100	3,000
Iniskin River	10,000	8,900	5,000
Bruin River	5,000	7,400	2,000
Rocky Cove (Sunday Creek)	*	1,000	400
Ursus Cove (streams)	5,000 - 10,000	6,500	3,000
	85,000 - 110,000	91,300	34,400
SOUTHERN DISTRICT			
Tutka Creek	*	1,100	100
Seldovia River	*	1,200	800
Port Graham River	4,000 - 8,000	2,100	500
	4,000 - 8,000	4,400	1,400
LOWER COOK INLET TOTAL	130,000 - 172,000	135,400	54,500

1/ Average escapement figures are based on weir counts and ground and aerial surveys conducted between 1951 and 1985. For many streams, only several years of data exist.

*No established goal.

Table 4. Lower Cook Inlet escapement goals, average observed and 1985 escapements for sockeye salmon.

	Escapement Goal	Average Escape.	1985 Escape.
SOUTHERN DISTRICT			
English Bay	10,000 - 20,000	8,500	5,000
Clearwater Slough	*		0
Total	10,000 - 20,000	8,500	5,000
OUTER DISTRICT			
Desire Lake	10,000	8,300	18,000
Delight Lake	10,000	6,900	26,000
Anderson Beach	2,000	500	100
Total	22,000	15,700	44,100
EASTERN DISTRICT			
Aialik Lake	2,500 - 5,000	8,500	8,000
Bear Lake	1,000+	*	1,100
Total	3,500 - 6,000	8,500	9,100
KAMISHAK DISTRICT			
Mikfik Lake	5,000	6,700	20,000
Chenik Lake	10,000 - 20,000	2,400	3,500
Kamishak River	*	2,800	800
Douglas River	*	1,200	+
Douglas Beach	*	400	+
Total	15,000 - 25,000	13,500	24,300
LOWER COOK INLET TOTAL	50,500 - 73,000	46,200	82,500

*Data not available.

Table 5. Emergency Order commercial fishing periods in Lower Cook Inlet, 1985.

Number	Date	Description
2-F-H-001-85	April 18	Opens the Outer, Eastern, and Kamishak Bay districts to herring sac roe fishing on April 20.
2-F-H-002-85	May 1	Closes the area between the longitude of Cape Fairfield and the longitude of Aialik Cape to herring seining effective at 8:00 a.m. Thursday May 2.
2-F-H-003-85	May 20	Opens waters of Resurrection Bay north of the latitude of Caines Head to salmon seining from 6:00 a.m. Tuesday May 28 until June 30. Fishing is allowed seven days per week and the closed areas at the head of the bay are not in effect.
2-F-H-004-85	April 28	Closes waters of Kamishak Bay between the latitudes of Ursus Head and Contact Point including Bruin Bay to herring sac roe seining at 7:30 p.m. Sunday April 28.
2-F-H-005-85	April 30	Closes waters of Kamishak Bay north of Ursus Head to herring sac roe seining at 11:30 p.m. Tuesday April 30.
2-F-H-006-85	May 1	Reopens waters of Kamishak Bay to herring sac roe seining from Bruin Bay to Fortification Bluff for 30 minutes from 10:00 until 10:30 a.m. Wednesday May 1.
2-F-H-007-85	May 1	Extends fishing time for herring sac roe seining in waters of Kamishak Bay between Bruin Bay and Fortification Bluff from 10:30 a.m. until 3:10 p.m. Wednesday May 1.
2-F-H-008-85	May 1	Closes all waters of Kamishak Bay north of the latitude of Amakdedori Creek to herring sac roe seining effective at 3:10 p.m. Wednesday May 1.

Table 5. (Continued)

2-F-H-009-85	May 7	Reopens waters of Kamishak Bay north of Ursus Head to herring sac roe seining for 30 minutes from 2:15 until 2:45 p.m. Tuesday May 7. The opening will be by flare.
2-F-H-010-85	June 5	Opens the Kamishak-Douglas, McNeil River and Bruin Bay subdistricts to salmon seining at 6:00 a.m. Friday June 7.
2-F-H-011-85	June 10	Allows fishing seven days per week in the Kamishak Bay district effective at 6:00 a.m. Tuesday June 11.
2-F-H-012-85	June 12	Opens McNeil River Lagoon at 10:00 a.m. Wednesday June 12.
2-F-H-013-85	June 12	Closes LCI to herring sac roe fishing at 6:00 a.m. Saturday June 15.
2-F-H-014-85	June 14	Extends subsistence fishing in the Port Graham subdistrict from June 15 until further notice and closes the commercial set gillnet season in the Port Graham subdistrict at 6:00 a.m. Saturday June 15.
2-F-H-015-85	June 21	Opens Aialik Bay to salmon seining at 6:00 a.m. Monday June 24. Closes McNeil Lagoon and puts the Kamishak Bay district back on the regular two 48 hour weekly fishing periods at 6:00 a.m. Saturday June 22. It also opens the East Nuka subdistrict, except for a one mile radius area around the mouth of Desire Lake Creek, at 9:00 a.m. Monday June 24 and opens the one mile radius area at Desire Lake by flare for one hour from 9:00 until 10:00 a.m. June 24.
2-F-H-016-85	June 21	Closes subsistence fishing in the Port Graham subdistrict at 6:00 a.m. Saturday June 22.
2-F-H-017-85	June 25	Opens the Tutka Bay and China Poot Bay subdistricts to salmon seining at 6:00 a.m. Thursday June 27 and removes the markers at the HEA powerline in China Poot Bay.

Table 5. (Continued)

2-F-H-018-85	June 20	Closes the Resurrection Bay subdistrict to salmon seining at 12:00 noon June 20.
2-F-H-019-85	June 26	Opens the one mile radius closed area around Desire Lake Creek and removes the markers at Desire Lake effective at 6:00 a.m. Thursday June 27.
2-F-H-020-85	June 27	Reopens McNeil River Lagoon to salmon seining from 11:00 a.m. Thursday June 27 until 6:00 a.m. Saturday June 29.
2-F-H-021-85	June 28	Opens McCarty Lagoon to salmon seining at 6:00 a.m. Monday July 1 and opens Chenik Lagoon for one hour from 3:00 until 4:00 p.m. Monday July 1. Opens Aialik Lagoon for 10 minutes by flare at approximately 9:00 a.m. Monday July 1.
2-F-H-022-85	July 3	Closes the waters of the Kamishak district around Chenik Lake Creek between the latitudes of the northern end of Nordyke Island and 59 degrees 15' N. latitude, located approximately 4 1/4 miles north of Nordyke Island.
2-F-H-023-85	July 5	Opens Tutka Lagoon to salmon seining by flare for 1 1/2 hours from 6:30 until 8:00 p.m. Monday July 8, extends fishing to seven days per week in the East Nuka subdistrict and opens the freshwater lagoon at Delight Lake effective at 11:00 a.m. Friday July 5.
2-F-H-024-85	July 10	Reopens the Port Graham subdistrict to set gillnet fishing at 6:00 a.m. Thursday July 11.
2-F-H-025-85	July 11	Opens waters of the Port Dick subdistrict southeast of the Middle Creek to Shelter Cove line to salmon seining at 6:00 a.m. Friday July 12 and opens Aialik Lagoon for 10 minutes by flare from 9:00 until 9:10 a.m. Friday July 12.

Table 5. (Continued)

2-F-H-026-85	July 10	Opens the Chenik Lagoon closed area for 14 hours from 10:00 a.m. until 12:00 midnight Friday July 12.
2-F-H-027-85	July 12	Opens the Nuka Island subdistrict with a one mile radius closure around Petrof Glacier Creek at 6:00 a.m. Monday July 15 and opens waters of the Port Dick subdistrict inside the Middle Creek to Shelter Cove line for 12 hours from 10:00 a.m. until 10:00 p.m. Monday July 15.
2-F-H-028-85	July 15	Opens Tutka Lagoon to salmon seining by flare for four hours from 6:00 until 10:00 p.m. Monday July 15.
2-F-H-029-85	July 18	Reduces fishing time back to the regular two 48 hour weekly fishing periods in the East Nuka subdistrict, puts the markers back in effect at Desire Lake Creek and closes the freshwater lagoon at Delight Lake Creek effective at 6:00 a.m. Saturday July 20.
2-F-H-030-85	July 23	Closes the McNeil River and Bruin Bay subdistricts to salmon seining at 6:00 a.m. Wednesday July 24.
2-F-H-031-85	July 20	Opens waters of Resurrection Bay between the latitudes of Caines Head and Tonsina Creek for 12 hours from 6:00 a.m. until 6:00 p.m. Tuesday July 23.
2-F-H-032-85	July 23	Opens Aialik Lagoon for one hour from 6:00 until 7:00 a.m., closes the Aialik Bay subdistrict at 7:00 a.m. and opens the Port Graham and Port Chatham subdistricts to seining at 6:00 a.m. Thursday July 25.
2-F-H-033-85	July 26	Closes the China Poot, Port Graham, Port Chatham, East Nuka and Nuka Island subdistricts to seining effective at 6:00 a.m. Saturday July 27.
2-F-H-034-85	July 27	Opens Aialik Lagoon to seining for 1 hour from 8:00 until 9:00 a.m. Monday July 29.

Table 5. (Continued)

2-F-H-035-85	July 28	Reopens McCarty Lagoon, a one mile radius area around the mouth of Delight Lake Creek and waters of the Nuka Island subdistrict within a 1 1/2 mile radius of Mike's Bay Creek to seining at 6:00 a.m. Monday July 29.
2-F-H-036-85	July 27	Opens waters of Resurrection Bay between the latitudes of Lowell Point and Caines Head for 12 hours from 6:00 a.m. until 6:00 p.m. Tuesday July 30.
2-F-H-037-85	August 1	Opens the Humpy Creek subdistrict at 6:00 p.m. Thursday August 1 and allows fishing up to the Department buoy in the creek.
2-F-H-038-85	July 31	Opens the Port Chatham, Windy Bay and East Nuka subdistricts to seining and allows fishing up to the regular markers at the head of Port Dick Bay at 6:00 a.m. Thursday August 1. Allows a short one hour opening by flare in James Lagoon from approximately 8:30 until 9:30 a.m. Thursday August 1.
2-F-H-039-85	August 1	Opens Tutka Lagoon to seining by flare for 30 minutes from approximately 2:00 until 2:30 p.m. Thursday August 1.
2-F-H-040-85	August 2	Closed the Kamishak-Douglas subdistrict to seining at 6:00 a.m. Saturday August 3.
2-F-H-041-85	August 5	Removes the markers at Desire Lake Creek at 1:00 p.m. Monday August 5, allows fishing in James Lagoon for five hours from 9:00 a.m. until 2:00 p.m. Tuesday August 6 and adjusts markers at Island Creek at 10:10 a.m. Tuesday August 6.
2-F-H-042-85	August 3	Opens waters of Resurrection Bay between the latitudes of Lowell Point and Caines Head to seining from 6:00 a.m. until 6:00 p.m. Tuesday August 6.
2-F-H-043-85	August 6	Extends the opening in Resurrection Bay for 12 hours from 6:00 p.m. Tuesday August 6 until 6:00 a.m. Wednesday August 7,

Table 5. (Continued)

2-F-H-044-85	August 8	Opens Tutka Lagoon by flare for 15 minutes from 6:45 until 7:00 p.m. Thursday August 8.
2-F-H-045-85	August 9	Closes the Nuka Island subdistrict and moves the markers at Island Creek back to their original position effective at 6:00 a.m. Saturday August 10.
2-F-H-046-85	August 13	Opens James Lagoon by flare for 4 hours from 5:00 until 9:00 p.m. Tuesday August 13, adjusts markers at Island Creek by flare for 1 hour from 5:45 until 6:45 p.m. Tuesday August 13 and closes the waters of Port Dick Bay west of the Middle Creek to Shelter Cove line at 6:00 a.m. Wednesday August 14.
2-F-H-047-85	August 14	Reopens the Kamishak-Douglas subdistrict to seining at 6:00 a.m. Thursday August 15.
2-F-H-048-85	August 16	Opens Tutka Lagoon by flare for one hour from 2:00 until 3:00 p.m. Friday August 16.
2-F-H-049-85	August 19	Opens Tutka Lagoon by flare for 30 minutes from 3:45 until 4:15 p.m. Monday August 19 and adjusts markers to a point 800 yards west of Shelter Cove in Port Dick Bay for two hours from 11:00 a.m. until 1:00 p.m. Monday August 19.
2-F-H-050-85	August 20	Extends fishing time in the Kamishak district to seven days per week at 6:00 a.m. Wednesday August 21.
2-F-H-051-85	August 27	Reopens the East Nuka subdistrict to seining for seven days on a seven day per week basis from 6:00 a.m. Wednesday August 28 until 6:00 a.m. Wednesday September 4 and allows fishing up to the creek mouth of Desire Lake but keeps McCarty Lagoon closed.
2-F-H-052-85	August 30	Extends fishing time in the Kamishak-Douglas subdistrict for seven days and allows fishing on a seven day per week basis from 6:00 a.m. Saturday August 31 until 6:00 a.m. Saturday September 7.

Table 6. Preliminary Estimate of Adult Pink Salmon return to Tutka Bay and Lagoon, 1985.

Commercial Harvest:	
Seine	484,293
Set Net	6,888
	<hr/>
Sub-Total	491,181
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Sport Catch	8,000
	<hr/>
Escapement:	
Tutka Creek and Channel	14,000
Egg-Take	43,000
	<hr/>
Total Return	556,181
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Tutka Lagoon Hatchery contribution estimated at 528,371 or 95% of the total run.

Table 7. Tutka Bay (241-16) Pink Salmon Seine Catch by Statistical Week.

Week	1978		1979		1980		1981	
	Entire Subdistrict	Lagoon Only	Entire Subdistrict	Lagoon Only	Entire Subdistrict	Lagoon Only	Entire Subdistrict	Lagoon Only
25								
26			3,786		3,691		8,647	
27			129,659		17,630		101,301	
28	24,683		178,178	68,500	76,810		239,547	
29	19,077		50,873	24,000	130,608	35,074	301,919	42,000
30	83,681	47,143	22,574	20,700	34,669		166,796	35,000
31	19,980	17,143	15,392	14,500	22,014	20,500	107,918	12,000
32	12,357	11,100			22,755	21,481	47,096	10,000
33	818						19,071	13,700
34							7,543	7,243
Total Seine Catch	160,596	75,386	400,462	127,700	308,177	77,055	999,838	119,943
Set Net Catch	7,266		21,354		13,336		26,736	
Sport Catch	---		2,000		5,000		6,000	
Egg Take	21,100		21,200		26,897		22,000	
Escapement	15,000		10,600		17,300		28,000	
Total Return	203,962		455,616		370,710		1,082,574	

1/ Preliminary data only.

Table 7. (continued)

Stat Week	1982		1983		1984		1985	
	Entire Subdistrict	Lagoon Only	Entire Subdistrict	Lagoon Only	Entire Subdistrict	Lagoon Only	Entire Subdistrict	Lagoon Only
25								
26				7,312			17,656	
27	3,560		13,782		40,700		63,632	
28	49,703	8,500	92,230		91,774	38,200	129,020	31,300
29	40,730		152,038	35,000	76,639	44,700	111,211	34,800
30	24,933		247,119	35,000	14,629		40,583	
31	44,326	24,000	68,522	18,000			45,644	22,200
32	4,091		28,380	10,000			44,685	17,600
33	10,434	11,000	1,751				23,397	13,800
34	--						8,771	5,200
Total Seine Catch	177,777	57,100	603,822	98,000	231,054	82,900	484,293	124,900
Set Net Catch	7,099		11,637		10,000		6,888	
Sport Catch	2,000		5,000		8,000		8,000	
Egg Take	41,200		53,800		41,000		43,000	
Escapement	18,500		12,900		10,500		14,000	
Total Return	246,576		687,159		300,554		556,181	

1/ Preliminary data.

Table 8. Lower Cook Inlet salmon catch by species, 1956-1985. 1/

Year	King	Red	Coho	Pink	Chum	Total
1956	333	36,306	9,345	207,920	88,218	342,122
1957	419	26,917	1,765	285,613	206,450	521,164
1958	120	19,450	1,796	949,766	124,482	1,095,614
1959	132	21,637	6,352	124,748	110,838	263,707
1960	27	24,726	2,692	611,647	116,082	755,174
1961	41	22,776	1,619	303,377	55,593	383,406
1962	60	25,286	7,727	2,248,341	179,259	2,460,673
1963	96	15,121	6,736	203,616	138,510	364,079
1964	91	20,654	9,460	1,055,417	323,335	1,408,957
1965	10	14,002	862	115,598	28,076	158,548
1966	62	15,333	5,411	579,240	129,062	729,108
1967	176	29,044	2,726	375,488	85,445	492,879
1968	64	95,242	4,883	585,441	75,134	760,764
1969	64	122,796	623	202,444	61,203	387,130
1970	107	22,312	4,860	574,284	224,158	825,721
1971	73	22,234	4,561	392,871	148,602	568,341
1972	88	57,897	2,234	28,663	75,543	164,425
1973	145	29,209	2,101	307,403	115,513	454,371
1974	183	27,428	6,514	50,601	19,210	103,936
1975	143	28,142	6,211	1,063,432	21,646	1,119,574
1976	450	58,159	3,216	136,445	50,822	249,092
1977	217	101,597	3,232	1,292,153	145,778	1,542,977
1978	1,747	156,404	6,529	352,561	73,518	590,759
1979	1,238	64,417	12,250	2,986,534	223,028	3,287,467
1980	424	69,442	14,505	889,703	73,492	1,047,566
1981	1,086	110,255	10,778	3,276,221	339,053	3,737,393
1982	1,066	131,320	46,892	551,522	197,987	928,787
1983	873	187,645	11,375	927,451	192,319	1,319,663
1984 2/	713	270,756	17,271	698,276	93,804	1,080,820
1985	1,043	278,694	10,327	1,229,717	30,638	1,550,419
30 Year						
Total	11,291	2,105,201	224,853	22,606,493	3,746,798	28,694,636
30 Year						
Average	376	70,174	7,495	753,550	124,893	956,488
% of						
Total	0.04	7.34	0.78	78.78	13.06	100.00

1/ Data source: final IBM computer runs, 1955-1983 and processor catch reports.

2/ Preliminary data.

Table 9. Summary of subsistence fishermen in Lower Cook Inlet by area of residence.

Area Residence of Permittee	Homer		Anchorage Area		Halibut Cove		Anch. Pt. Ninilchik		Seldovia		Port Graham/ English Bay		Kenai/ Soldotna		Other		Total Permits Issued
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	
1974	108	73.0	20	13.5	6	4.1	4	2.7	1	0.7	3	2.0	5	3.4	1	0.7	148
1975	118	75.2	13	8.3	6	3.8	7	4.5	5	3.2	2	1.3	4	2.5	2	1.3	157
1976	182	70.0	24	9.2	9	3.5	25	9.6	5	1.9	4	1.5	6	2.3	5	1.9	260
1977	153	77.3	8	4.0	8	4.0	17	8.6	7	3.6	0	0	2	1.0	3	1.6	198
1978	214	68.8	40	12.9	5	1.6	30	9.6	12	3.8	3	1.0	4	1.3	3	1.0	311
1979	276	62.7	67	15.2	2	0.5	61	13.9	3	0.7	0	0	11	2.5	20	4.6	440
1980	310	58.2	81	15.2	0	0	80	15.0	7	1.3	0	0	42	7.9	13	2.4	533
1981	274	71.4	43	11.2	8	2.1	37	9.6	3	0.8	1	0.3	14	3.6	4	1.0	384
1982	295	74.7	19	4.8	9	2.3	44	11.1	0	0	0	0	7	1.8	21	5.3	395
1983	267	77.9	24	7.0	3	0.9	33	9.6	8	2.3	0	0	0	0	8	2.3	343
1984	266	72.0	20	5.4	6	1.6	62	16.8	5	1.4	1	0.3	5	1.4	4	1.1	369
1985	251	79.4	15	4.8	6	1.9	33	10.4	6	1.9	0	0	2	0.6	3	1.0	316
12 Year Total	2,714	-	374	-	68	-	433	-	62	-	14	-	102	-	87	-	3,854
12 Year Average	226	70.4	31	9.7	6	1.8	36	11.2	5	1.6	1	0.4	9	2.7	7	2.2	321

Table 10. Subsistence fishery catches for the Southern district of Cook Inlet, 1969-1985.

Year	Issued	Returned	Permits Not		King	Sockeye	Coho	Pink	Chum	Other	Total
			Fished	Returned							
1969	47	44	9	93.6	0	9	752	38	0	17	816
1970	78	73	18	93.6	0	12	1,179	143	13	39	1,386
1971	112	95	42	84.8	2	16	1,549	44	7	20	1,638
1972	135	105	41	77.8	1	11	975	48	69	19	1,123
1973	143	128	46	89.5	0	18	1,304	84	40	9	1,453
1974	148	118	66	80.3	0	16	376	43	77	27	539
1975	292	276	55	94.5	4	47	1,960	632	61	95	2,799
1976	242	221	83	91.3	16	46	1,962	1,513	56	75	3,668
1977	197	179	42	90.9	12	46	2,216	639	119	84	3,116
1978	311	264	113	84.9	4	35	2,482	595	34	89	3,239
1979	437	401	163	91.8	6	37	2,118	2,251	41	130	4,583
1980	533	494	195	92.7	43	32	3,491	1,021	25	153 1/	4,765
1981	384	374	100	97.4	25	64	4,314	732	89	+100	5,324
1982	395	378	71	95.7	39	46	7,303	955	123	8	8,474
1983	343	330	118	96.2	4	21	2,525	330	40	2	2,922
1984	369	349	127	94.6	4	25	3,666	821	87	25	4,628
1985	316	288	97	91.1	5	43	3,372	166	35	3	3,624
<hr/>											
17 Year											
Total	4,482	4,117	1,386	-	165	524	41,544	10,053	916	895	54,099
<hr/>											
17 Year											
Average	264	242	82	91.7	10	31	2,444	591	54	53	3,182

1/ Steelhead.

Table 11. Port Graham subsistence salmon harvest by year and month.

Year/Month	Chinook	Sockeye	Coho	Pink	Chum	Sub- Total	Calendars	Harvest Days
1981								
May 10-31	31	543	0	0	0	574	39/47	94
June 1-15	11	986	0	7	1	1,005	36/47	61
August 16-31	0	1	173	180	40	394	38/47	45
Sept. 1-30	0	0	452	41	2	495	41/47	32
Totals	42	1,530	625	228	43	2,468	-	268
1982								
May 10-31	32	264	0	0	3	299	36/36	46
June 1-30	25	339	0	1	23	388	37/38	107
August 16-31	4	5	209	229	76	523	34/35	73
Sept. 1-30	0	14	321	121	14	470	28/34	59
Totals	61	622	530	351	116	1,680	-	348
1983 1/								
May 10-31	19	368	0	0	0	387	31	-
June 1-15	38	697	0	5	1	741	19	-
August 16-31	0	1	232	76	53	362	16	-
Sept. 1-30	0	0	208	88	11	307	13	-
Totals	57	1,066	440	169	65	1,797	-	-
1984 1/								
May 10-31	19	971	0	1	0	991	29/32	94
June 1-15	2	1,119	0	0	1	1,122	18/32	84
August 16-31	0	5	121	214	5	345	8/34***	28
Sept. 1-30	0	0	45	0	0	45	3/34***	8
Totals	21	2,095	166	215	6	2,503	-	214
1985 1/								
May 10-31	114	83	0	0	0	197	24/30	70
June 1-22	42	384	9	16	22	473	18/30	83
August 16-31	0	2	49	16	0	67	6/8	22
Sept. 1-30	0	0	132 2/	10	0	142	8/8	39
Totals	156	469	190	42	22	879	-	214

*Estimate

**Some harvest, no estimate.

***More sport fish effort than subsistence effort due to cohos moving directly into the stream rather than milling in the bay. Est. sport coho harvest at 300.

1/ Not comparable to 1981 and 1982 data.

Contains catches in gillnets during open subsistence periods only and does not include harvests with other types of gear or during closed subsistence fishing times.

2/ Est. 350 additional sport caught coho.

Table 12. English Bay subsistence salmon harvest by year and month.

Year/Month	Chinook	Sockeye	Coho	Pink	Chum	Sub- Total	Calendars	Harvest Days
1981								
May 10-31	1	609	0	0	0	610	25/29	76
June 1-15	10	263	0	13	0	286	22/29	61
August 16-31	0	37	0	296	14	347	23/29	92
Sept. 1-30	0	25	214	139	0	378	20/29	61
Totals	11	934	214	448	14	1,621	-	317
1982								
May 10-31	5	280	0	6	7	298	36/36	79
June 1-15	2	641	0	0	0	643	31/31	115
August 1-31	3	315	119	674	0	1,111	25/29	127
Sept. 1-30	0	13	756	724	29	1,522	27/29	150
Totals	10	1,249	875	1,404	36	3,574	-	508
1983 1/								
May 10-31	0	807	0	0	0	807	28	-
June 1-15	0	655	0	0	0	655	17	-
August 16-31	0	210	65	363	0	638	14	-
Sept. 1-30	0	112	302	0	0	414	10	-
Totals	0	1,784	367	363	0	2,514	-	-
1984 1/								
May 10-31	16	755	0	0	0	771	17/26	100
June 1-15	2	463	0	14	0	479	10/26	45
August 16-31	0	7	170	390	0	576	9/26	49
Sept. 1-30	0	215	0	0	0	215	9/26***	-
Totals	18	1,225	385	404	0	2,032	-	219
1985 1/								
May 10-31	0	201	0	0	0	200	20/26	-
June 1-22	0	431	0	9	0	422	18/18	-
August 16-31	5	54	236	184	2	481	18/18	-
Sept. 1-30	0	10	294 2/	120	0	424	14/18	-
Totals	5	696	530	313	2	1,527	-	-

*Estimate.

**Some harvest, no estimate.

***More sport harvest, but no estimate.

1/ Not comparable to 1981 and 1982 data.

Contains catches in gillnets during open subsistence periods only and does not include harvests with other types of gear or during closed subsistence fishing times.

2/ Est. 200 additional sport caught coho.

Table 13. Age, sex and size of Pacific herring from the commercial seine fishery in Resurrection Bay, Lower Cook Inlet, 1985.

Sample Period	Age (years)	Sex			Percent of		Weight			Std.		Length Number Measured
		Male	Female	Unknown	Total	Total	Mean (gm)	Std. Dev.	Number Weighed	Mean (mm)	Std. Dev.	
5/ 1	1	-	-	-	-	-	-	-	-	-	-	-
	2	24	3	-	27	13.0	55	6.6	27	164	6.4	27
	3	36	23	1	60	28.8	79	13.7	60	185	9.1	60
	4	18	25	-	43	20.7	103	21.1	43	197	8.0	43
	5	33	21	1	55	26.4	116	15.9	55	207	15.0	55
	6	9	5	1	15	7.2	140	21.9	15	221	9.4	15
	7	2	2	-	4	1.9	154	58.3	4	227	16.2	4
	8	2	1	-	3	1.4	175	32.5	3	234	15.5	3
	9+	1	-	-	1	.5	173	-	1	231	-	1
Period total		125	80	3	208	100.0	98	32.3	208	195	20.1	208

Table 14. Age, sex and size of Pacific herring from the commercial seine fishery in Two Arm Bay, Lower Cook Inlet, 1985.

Sample Period	Age (years)	Sex			Percent of		Weight			Std.		Length Number Measured
		Male	Female	Unknown	Total	Total	Mean (gm)	Std. Dev.	Number Weighed	Mean (mm)	Std. Dev.	
5/ 3	1	-	-	-	-	-	-	-	-	-	-	-
	2	6	1	-	7	13.5	62	9.2	7	166	7.7	7
	3	5	5	-	10	19.2	94	5.3	10	187	4.3	10
	4	8	13	-	21	40.4	121	19.6	21	202	10.0	21
	5	4	6	-	10	19.2	145	27.1	10	214	9.9	10
	6	2	1	-	3	5.8	160	50.1	3	218	19.9	3
	7	-	-	-	-	-	-	-	-	-	-	-
	8	-	1	-	1	1.9	271	-	1	255	-	1
	9+	-	-	-	-	-	-	-	-	-	-	-
Period total		25	27	-	52	100.0	118	40.6	52	198	19.7	52

Table 15. Age, sex and size of Pacific herring from the commercial seine fishery at McNeil River, Lower Cook Inlet, 1985.

Sample Period	Age (years)	Sex			Percent of		Weight			Std. Length		
		Male	Female	Unknown	Total	Total	Mean (gm)	Std. Dev.	Number Weighed	Mean (mm)	Std. Dev.	Number Measured
5/12	1	-	-	-	-	-	-	-	-	-	-	-
	2	1	1	-	2	1.1	48	.0	2	156	7.8	2
	3	-	1	-	1	.5	80	-	1	184	-	1
	4	24	28	-	52	28.0	117	21.5	52	207	7.1	52
	5	21	13	-	34	18.3	143	21.9	34	219	9.2	34
	6	25	21	-	46	24.7	165	30.5	46	231	9.0	46
	7	11	6	-	17	9.1	180	31.0	17	238	8.5	17
	8	12	10	-	22	11.8	193	27.8	22	240	11.3	22
	9+	8	4	-	12	6.5	204	32.4	12	246	8.3	12
Period total		102	84	-	186	100.0	153	40.7	186	224	17.6	186

Table 16. Age, sex and size of Pacific herring from the commercial seine fishery at Rocky Cove, Lower Cook Inlet, 1985.

Sample Period	Age (years)	Sex			Percent of Total		Weight		Number Weighed	Std. Length		Number Measured
		Male	Female	Unknown	Total	Total	Mean (gm)	Std. Dev.		Mean (mm)	Std. Dev.	
4/27	1	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-
	4	1	2	-	3	4.2	142	22.3	3	222	14.2	3
	5	4	2	-	6	8.5	165	10.6	6	228	8.3	6
	6	10	4	-	14	19.7	192	21.7	14	236	9.3	14
	7	8	5	-	13	18.3	205	36.2	13	245	9.5	13
	8	7	11	-	18	25.4	241	32.5	18	248	7.5	18
	9+	5	12	-	17	23.9	262	30.4	17	258	8.2	17
Period total		35	36	-	71	100.0	219	45.4	71	245	13.3	71
4/28	1	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-
	4	2	8	-	10	4.5	130	12.0	10	208	5.4	10
	5	9	7	-	16	7.1	156	16.8	16	218	8.2	16
	6	15	16	-	31	13.8	183	28.2	31	229	13.4	31
	7	13	15	-	28	12.5	220	25.3	28	242	7.2	28
	8	30	38	1	69	30.8	222	31.4	69	244	8.7	69
	9+	33	36	1	70	31.3	247	28.7	70	250	7.9	70
Period total		102	120	2	224	100.0	215	42.6	224	240	14.6	224
All periods	1	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-
	4	3	10	-	13	4.4	132	14.8	13	212	9.5	13
	5	13	9	-	22	7.5	158	15.6	22	221	9.2	22
	6	25	20	-	45	15.3	186	26.4	45	232	12.6	45
	7	21	20	-	41	13.9	215	29.6	41	243	8.0	41
	8	37	49	1	87	29.5	226	32.4	87	245	8.6	87
	9+	38	48	1	87	29.5	249	29.5	87	252	8.5	87
Total		137	156	2	295	100.0	216	43.2	295	241	14.4	295

Table 17. Age, sex and size of Pacific herring from the commercial seine fishery at Kerschner Lake, Lower Cook Inlet, 1985.

Sample Period	Age (years)	S e x			Percent of		W e i g h t			S t d . L e n g t h		
		Male	Female	Unknown	Total	Total	Mean (gm)	Std. Dev.	Number Weighed	Mean (mm)	Std. Dev.	Number Measured
5/ 1	1	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-
	4	4	6	2	12	5.3	133	11.7	12	211	5.7	12
	5	11	14	2	27	12.0	159	19.7	27	221	8.3	27
	6	16	26	4	46	20.4	196	21.6	46	233	8.6	46
	7	16	18	6	40	17.8	210	23.7	40	237	7.4	40
	8	21	25	9	55	24.4	231	29.9	55	245	9.2	55
	9+	21	19	5	45	20.0	251	26.6	45	252	6.8	45
Period total		89	108	28	225	100.0	210	41.4	225	238	13.7	225

Table 18. Age, sex and size of Pacific herring from the commercial seine fishery in Iniskin Bay, Lower Cook Inlet, 1985.

Sample Period	Age (years)	Sex			Percent of Total		Weight			Std. Length		
		Male	Female	Unknown	Total	Total	Mean (gm)	Std. Dev.	Number Weighed	Mean (mm)	Std. Dev.	Number Measured
4/29	1	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-
	4	6	-	-	6	8.1	127	17.9	6	210	9.5	6
	5	3	4	-	7	9.5	174	23.1	7	224	10.4	7
	6	8	8	-	16	21.6	177	17.2	16	226	5.4	16
	7	6	5	-	11	14.9	202	27.5	11	236	5.8	11
	8	12	4	-	16	21.6	192	29.4	16	233	7.1	16
	9+	8	10	-	18	24.3	259	31.9	18	252	8.0	18
Period total		43	31	-	74	100.0	199	46.1	74	234	14.3	74
4/30	1	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-
	4	3	5	-	8	5.0	129	22.7	8	206	11.7	8
	5	12	10	-	22	13.8	153	23.1	22	219	8.4	22
	6	15	16	-	31	19.5	177	20.0	31	227	6.1	31
	7	19	10	-	29	18.2	200	33.5	29	234	8.6	29
	8	22	23	-	45	28.3	214	27.7	45	239	8.1	45
	9+	14	10	-	24	15.1	241	39.0	24	250	10.4	24
Period total		85	74	-	159	100.0	196	41.9	159	233	14.0	159
5/ 7	1	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-
	4	11	15	-	26	17.3	131	17.8	26	208	6.3	26
	5	13	19	-	32	21.3	160	21.5	32	220	8.8	32
	6	17	31	-	48	32.0	186	22.3	48	228	7.7	48
	7	8	8	-	16	10.7	201	23.9	16	234	8.6	16
	8	14	7	-	21	14.0	218	30.0	21	240	9.8	21
	9+	2	5	-	7	4.7	230	17.7	7	247	7.0	7
Period total		65	85	-	150	100.0	179	37.3	150	226	13.6	150
All periods	1	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-
	4	20	20	-	40	10.4	130	18.4	40	208	7.9	40
	5	28	33	-	61	15.9	159	22.7	61	220	8.9	61
	6	40	55	-	95	24.8	181	21.1	95	227	6.8	95
	7	33	23	-	56	14.6	201	29.4	56	234	8.0	56
	8	48	34	-	82	21.4	211	29.8	82	233	8.7	82
	9+	24	25	-	49	12.8	246	35.2	49	251	9.2	49
Total		193	190	-	383	100.0	190	41.9	383	230	14.3	383

Table 19. Lower Cook Inlet herring catches in tons by district,
1961-1985.

Year	Southern	Kamishak	Eastern	Outer	Total
1961	0	0	0.6	0	0.6
1962	0	0	0	0	0
1963	0.8	0	0	0	0.8
1964	0.2	0	0	0	0.2
1965	1.6	0	0	0	1.6
1966	0	0	6.6	0	6.6
1967	0	0	0	0	0
1968	20.0	0	0	0	20.0
1969	550.5	0	758.0	38.0	1,346.5
1970	2,708.7	0	2,100.3	0	4,809.0
1971	12.5	0	831.0	0	843.5
1972	1.0	0	30.0	0	31.0
1973	203.8	243.1	830.8	300.5	1,578.2
1974	109.7	2,113.7	47.2	384.0	2,654.6
1975	24.4	4,118.6	0	0	4,143.0
1976	0	4,842.2	0	0	4,842.2
1977	291.0	2,907.5	0	0	3,198.5
1978	16.6	401.9	0	0	418.5
1979	13.1	415.1	0	0	428.2
1980	0	0	0	0	0
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	0	0	0	0	0
1985	0	1,131.6	233.2	0	1,364.8
Total	3,953.9	16,173.7	4,837.7	722.5	25,687.8
Average	282.4	2,021.7	537.5	240.8	1,027.5

Data Source: Final IBM runs.

Appendix Table 1. Salmon fishing licenses and permits issued and fished in Lower Cook Inlet, 1960-1984.

----- Seines -----						
Year	Gear License	Permanent Permit	Interim Permit	Total	Seines Fished	Set Nets Fished

1960	95			95		
1961	89			89		
1962	91			91		
1963	112			112		
1964	108			108		
1965	72			72		
1966	77			77	75	
1967	58			58	54	
1968	91			91	88	
1969	75			75	17	
1970	89			89	9	
1971	81			81	32	
1972	83			83	52	
1973	86			86	49	
1974	110			110	49	32
1975		49	51	100	63	27
1976		63	16	79	53	25
1977		72	10	82	72	26
1978		74	9	83	72	39
1979		75	9	84	75	38
1980		75	9	84	83	40
1981		75	10	85	85	40
1982		77	7	84	69	39
1983		78	5	83	83	24
1984 1/		78	3	81	39	35
1985		80	1	81	51	34

Total	1,317	796	130	2,243	1,170	399

Average	88	72	13	86	59	33

*Data source: CFEC microfiche printouts and final IBM computer runs.

1/ Preliminary Data.

Appendix Table 2. Ex-vessel value of Lower Cook Inlet commercial salmon harvest in thousands of dollars by species, 1960-1985.

Year	King	Sockeye	Coho	Pink	Chum	Total
1960	0	36	3	287	127	453
1961	0	33	2	144	36	215
1962	0	37	8	1,056	108	1,209
1963	1	22	7	87	84	201
1964	0	30	9	369	194	602
1965	0	21	1	34	20	76
1966	0	23	5	237	82	347
1967	1	45	3	157	58	264
1968	0	152	5	311	57	525
1969	0	219	1	137	46	403
1970	1	35	6	273	215	530
1971	1	38	7	248	144	438
1972	1	130	6	22	146	305
1973	3	113	5	310	251	682
1974	5	283	30	100	77	495
1975	3	106	27	1,456	71	1,663
1976	7	287	13	207	217	731
1977	7	620	9	1,719	604	2,959
1978	62	1,516	52	370	341	2,341
1979	36	621	68	4,495	1,097	6,317
1980	12	336	64	1,082	298	1,792
1981	18	706	60	5,334	1,291	7,409
1982	28	780	367	318	820	2,313
1983	10	685	53	584	478	1,810
1984 2/	23	1,393	120	562	216	2,314
1985	47	1,637	86	974	68	2,812
26 Year Total	266	9,904	1,017	20,873	7,146	39,206
26 Year Average	10	381	39	803	275	1,508

1/ Values obtained by using the formula: average price per lb. x average weight of fish x catch = Ex-vessel value.

2/ Preliminary data.

Appendix Table 3. Average salmon price per pound by species in dollars, Lower Cook Inlet, 1960-1985. 1/

Year	King	Sockeye	Coho	Pink	Chum
1960	0.25 2/	0.27	0.18	0.15	0.16
1961	0.24 2/	0.24	0.15	0.11	0.08
1962	0.23 2/	0.27	0.16	0.15	0.07
1963	0.25 2/	0.27	0.15	0.13	0.08
1964	0.24 2/	0.27	0.15	0.10	0.07
1965	0.22 2/	0.24	0.11	0.08	0.08
1966	0.22 2/	0.24	0.14	0.11	0.08
1967	0.26	0.26	0.15	0.11	0.08
1968	0	0.25	0.17	0.18	0.09
1969	0	0.27	0.23	0.17	0.13
1970	0.35	0.27	0.18	0.12	0.13
1971	0.53	0.28	0.24	0.18	0.15
1972	0.45	0.36	0.44	0.20	0.28
1973	0.93	0.48	0.39	0.27	0.29
1974	0.76	1.54	0.72	0.48	0.56
1975	0.61	0.61	0.49	0.37	0.43
1976	0.91	0.77	0.59	0.37	0.48
1977	1.07	0.86	0.55	0.35	0.45
1978	1.09	1.31	0.97	0.30	0.54
1979	1.54	1.53	0.89	0.43	0.60
1980	1.30	0.88	0.85	0.38	0.52
1981	1.35	1.05	0.65	0.44	0.47
1982	1.29	0.99	0.87	0.18	0.46
1983	0.50	0.73	0.65	0.21	0.27
1984	1.29	1.05	0.77	0.23	0.25
1985	1.60	1.25	0.85	0.22	0.27

1/ 1960-1974 values obtained (except as noted) by using the formula:
 Avg. price/lb. x avg. weight/fish x catch = ex-vessel value. Ex-vessel values obtained from tables 34 & 39 in Lower Cook Inlet status report. Avg. weight/fish from commercial fish catch & production statistical leaflet for Cook Inlet. Values do not reflect any retroactive price increases paid after the fishing seasons.

2/ Values obtained by using formula:
 Avg. price/lb. = Avg. price/fish

Avg. weight/fish

Avg. weight/fish from statistical leaflet. Avg. price/fish from annual management reports.

Appendix Table 4. Salmon average weight per fish in pounds,
Lower Cook Inlet, 1960-1985. 1/

Year	King	Sockeye	Coho	Pink	Chum
1960	20.2	5.4	6.2	3.2	6.8
1961	20.5	6.0	8.2	4.5	7.8
1962	21.5	5.4	6.4	3.2	8.0
1963	19.7	5.4	7.1	3.4	7.2
1964	20.8	5.4	6.3	3.5	8.4
1965	22.2	6.2	10.1	3.6	8.7
1966	23.1	5.9	6.4	3.6	7.5
1967	21.9	6.0	7.2	3.9	8.1
1968	26.2	6.3	5.9	3.0	8.3
1969	18.2	6.7	7.0	3.9	7.3
1970	26.6	5.8	6.8	3.9	7.1
1971	25.9	6.0	6.3	3.5	6.6
1972	25.0	6.2	6.1	3.9	6.9
1973	22.3	8.1	6.1	3.7	7.4
1974	36.1	6.7	6.4	4.1	7.2
1975	33.2	6.2	8.8	3.7	7.6
1976	16.1	6.4	7.0	4.1	8.9
1977	30.1	7.2	5.9	3.8	9.2
1978	32.3	7.4	8.2	3.5	8.6
1979	18.9	6.3	6.2	3.5	8.2
1980	21.7	5.5	5.2	3.2	7.8
1981	12.5	6.1	8.5	3.7	8.1
1982	20.6	6.0	9.0	3.2	9.0
1983	22.8	5.0	7.2	3.0	9.2
1984 2/	25.0	4.9	9.0	3.5	9.2
1985 2/	28.0	4.7	9.8	3.5	8.2
26 Year Total	586.4	157.2	187.3	93.6	207.3
26 Year Average	22.6	6.0	7.2	3.6	8.0

1/ 1960-1974 values obtained from commercial fish catch &
production statistical leaflets. Remaining years from
IBM computer runs.

2/ Preliminary data.

Appendix Table 5. Pink salmon alevin density by brood year for index streams in the Southern and Outer districts of Cook Inlet, 1964-1984. 7/

Year	Humpy	Tutka	Seldovia	Port Graham	Windy Left	Windy Right	Rocky	Port Dick	Island Creek	China Foot 1/	Ave. 9/
1964	199.1	195.8	284.1	242.1	100.1	75.3	131.3	222.7	80.7	0.0 6/	170.1
1965	245.7	154.7	151.3	40.5	21.2	48.4	0.0 2/	149.6	0.0	244.3	90.2
1966	131.3	120.5	136.6	165.7	28.3	13.9	11.4	43.4	67.4	673.8	79.8
1967	42.0	40.5	177.8 3/	58.1	39.8	83.9	0.0 2/	319.6	0.0	973.8	84.6
1968	628.4 5/	516.5	506.5	302.2	94.6	195.2	142.0 10/	236.1	67.3	1,933.6	298.8
1969	161.4 5/	348.0	493.2	247.9	325.8	779.0	0.0 2/	195.8	0.0	0.0 6/	283.5
1970	517.6	0.0 6/	0.0 6/	106.3	44.1	67.8	0.0 6/	62.4	23.7	0.0 6/	
1972	94.7	149.3	208.3	79.2	0.0 2/	0.0 2/	18.0	39.8	11.8	1,035.1	66.8
1973	377.6	495.4	405.1	187.6	157.7	422.2	0.0	90.6	0.0 2/	0.0 6/	237.4
1974	391.1	584.3	553.2	167.7	0.0 2/	0.0 2/	0.2	25.4	0.0 2/	1,181.5	191.3
1975	724.1	581.3	368.1 8/	379.6	174.5	448.9	22.6	192.2 8/	0.0 2/	1,667.8	321.3
1976	214.0	372.8	315.7	85.7	0.0 2/	0.0 2/	0.5	144.5	0.0 2/	445.7	125.9
1977	1,005.5	353.2	398.0	207.8	405.0	611.3	30.4 8/	480.0	1.7	951.9	388.1
1978	306.8	491.2	394.8	191.7 10/	27.0 11/	27.0	29.8	208.5	4.5	657.1	186.8
1979	764.6	342.0	279.2	283.9	198.2 12/	260.4 12/	204.4	561.5	68.5	268.6	329.2
1980	68.4	194.5	179.6	161.7	162.8	148.1	*	62.3	91.1	45.2	118.7
1981	374.2	422.1	520.0	318.6	121.4	299.1	6.2	248.4	233.2	0.0	254.3
1982	210.8	89.2	124.7	193.8	*	*	0.0 12/	199.3	83.6	753.6	100.1
1983	132.2	131.6	57.2	173.4	120.2	361.6	*	103.4	128.0	0.0	134.2
1984	355.5	518.6	368.6	241.3	131.9	221.8	*	357.9	331.9	790.1	280.8
Total	6,944.9	6,111.5	5,921.0	3,834.8	2,152.6	4,063.9	596.6	3,943.4	1193.4	11,625.1	3,762.4
Avg.	347.2	305.6	296.1	191.7	107.6	203.2	29.8	197.2	59.7	581.3	188.1

Appendix Table 5. (Continued)

- 1/ This stream was not used in further calculations (weighted averages).
- 2/ Estimated zero fry density since escapements were estimated to be below 300 spawners.
- 3/ Used average pre-emergent fry density from previous two odd years. Not sampled for 1967.
- 4/ Average even-year density from years 1962, 1964 and 1966.
- 5/ Used sample size of 150 points.
- 6/ Not sampled due to ice conditions.
- 7/ Sampling invalid due to lateness in 1971.
- 8/ Possibly had some early outmigration of pink fry salmon.
- 9/ Averages do not include China Poot.
- 10/ Incomplete sampling due to high water.
- 11/ Not samples - assumed to be similar to Windy Right.
- 12/ Sampled late. Fry already emerged.
- * Not sampled.

Appendix Table 6. Pink salmon alevin density by brood year for non-index salmon streams in Lower Cook Inlet.

Year	Mayor	Bear	Salmon	Clear	Tonsina	Humpy	Thumb	Spring
1966								
1975								
1976	19.9	293.7	51.1	0				
1977								
1978	39.0	871.6 1/		3.2	89.6			
1980	161.7	538.4	238.3		188.6			
1981					130.9	10.8	10.8	379.3
1982	13.9	732.7	61.0	7.7		1.5	174.0	77.8
1983		25.7			176.2	585.7	752.1	155.1
1984	57.3	344.9			124.5	52.7	611.0	4.5
Total	291.8	2,807.0	350.4	10.9	709.8	650.7	1,547.9	616.7
Ave.	58.4	467.8	116.8	5.5	142.0	162.7	387.0	154.2

Year	Barabara	South Nuka	Mikes Bay	James Lagoon	Dogfish Lagoon	Port Chatham	Ave.
1966		23.7				51.0	37.4
1975	500.3	318.5					409.4
1976							121.6
1977		741.2					741.2
1978							250.9
1980							281.8
1981							133.0
1982					6.8		134.4
1983			975.2	278.3	7.3		369.5
1984				291.7			212.4
Total	500.3	1,083.4	975.2	570.0	14.1	51.0	1,950.4
Ave.	500.3	361.1	975.2	285.0	7.1	51.0	195.0

1/ Stream only partially sampled due to ice cover.

Appendix Table 7. Chum salmon alevin density by brood year for streams in Lower Cook Inlet.

Year	Dogfish Lagoon	Tutka	Port Graham	Seldovia	Windy Right	Port Dick	Island Creek	Rocky	James Lagoon	Tonsina	Spring	Ave.
1964			39.4		57.7	250.7	75.3	39.8				92.6
1965			0.4	0.4	54.7	137.4	110.5	-				60.7
1966		13.6	0	0	18.5	115.5	188.8	7.3				49.1
1967		0	2.4	0	14.8	25.3	374.8	-				69.6
1968		0	27.0	0	83.0	19.7	120.8	-				41.8
1969		0	22.8	0	33.6	76.0	526.8	-				109.9
1970		0	0	0	160.9	0	244.6	-				67.6
1971		0	0	0	8.1	6.5	-	-				2.9
1972		0	54.9	5.1	-	3.5	170.4	9.0				40.5
1973		0	13.6	0	0	12.0	131.4	30.5				26.8
1974		0	0.2	0	-	32.1	-	0.2				6.5
1975		0	3.6	0	89.0	22.5	243.1	209.7				81.1
1976		0	23.8	0	0	14.0	-	37.9				12.6
1977		6.9	49.8	0	0.5	51.6	369.7	45.6				74.9
1978	426.1	150.6	131.5	26.9	0	136.7	258.8	2.2		183.2		146.2
1979		0	35.5	0	0	5.6	311.2	71.1		-		60.5
1980		0	121.3	0	2.8	0.9	295.3	-		19.7		62.9
1981		0	19.9	0	7.7	1.3	271.7	0		9.7	6.7	39.6
1982	95.1	6.7	55.0	0	0	0.8	253.0				82.1	101.6
1983	1.1	52.3	18.0	0	13.2	7.0	326.4	-	208.3	303.3	86.4	101.6
1984	-	3.9	0.8	10.6	12.2	4.2	201.1	-	16.4	194.4	85.4	58.8
Total	522.3	234.0	619.9	43.0	556.7	923.3	4,473.7	453.3	224.7	710.3	260.6	1,307.8
Ave.	174.1	12.3	29.5	2.2	29.3	44.0	248.5	30.2	112.4	142.1	65.2	62.3

Appendix Table 8. Estimated Pink Salmon Escapements in Thousands of Fish for the Nine Index Streams in the Southern and Outer Districts of Cook Inlet. 1/

YEAR	HUMPY	TUTKA 3/	SELDOVIA	PORT GRAHAM	WINDY LEFT 6/	WINDY RIGHT	ROCKY 8/	PORT DICK 6/	ISLAND CREEK	TOTAL
1964	18.5 2/	20.0	60.0	16.0	7.7	6.2	80.0	31.5	30.0	269.9
1965	28.0	20.0	30.0	1.5	10.0	2.0	.3	50.0	.5	142.3
1966	30.0	12.0	86.0	24.0	7.0	7.0	44.0	35.0	7.0	252.0
1967	25.0	7.0	55.0	2.0	6.0	6.0	1.0	20.0	.5	122.5
1968	24.7	7.9	53.2	24.4	6.9	2.8	43.1	29.0	4.3	196.3
1969	5.4	6.5	60.0	4.0	23.0	3.2	1.0	12.0	.1	115.2
1970	55.2	6.5	23.0	16.6	13.0	2.1	32.0	34.5	5.5	188.4
1971	45.0	16.7	31.1	13.2	35.4	13.0	1.6	97.8 2/	.1	253.9
1972	13.8	1.5	5.8	2.4	.4	.1	8.2	10.0 2/	1.7	43.9
1973	36.9	6.5	14.5	7.0	12.9	4.6	2.0	26.4 2/	.5	111.3
1974	17.4	2.6	13.7	2.8	.1	.1	1.5	1.5 2/	.5	40.2
1975	64.0	17.6	36.2	27.3	18.7	9.7	4.4	62.8 2/	.1	240.8
1976	27.2	11.5	25.6	6.5	0.2	0.2	2.7	12.7	0.0	86.6
1977	86.0	14.0	35.7 4/	20.6 4/	47.3	11.1	36.7	109.3	0.6	361.3
1978	46.1	15.0	24.6	6.7	1.1	0.3	8.2	44.9	0.4	147.3
1979	200.0	10.6	43.8	32.7	74.8	10.4	85.5 4/	116.9	0.5	574.7
1980	64.4	17.3	65.5	40.2	10.9	3.3	6.4 4/	56.1 7/	2.2	266.3
1981	115.0	21.1	62.7	18.4	31.3	4.7	25.0	106.0	25.0	409.2
1982	31.9	18.5	38.4	28.9	4.4	4.7	6.6	19.9	15.0	168.3
1983	104.8	12.9	27.9	4.6	11.9	4.3	16.1	64.1	15.3	261.9
1984	84.2	10.5	14.2	10.9	2.5	3.4	9.0	44.6	35.0	214.3
1985	117.0	14.0	22.8	26.3	8.9	5.4	12.1	65.3	27.9	299.7
Total	1240.5	270.2	829.7	337.0	334.4	104.6	426.9	1047.3	172.7	4,763.3
Average	56.4	12.3	37.7	15.3	15.2	4.8	19.4	47.6	7.9	216.6
Escape.										
Range	22.5-30	4.5-7 5/	24-30	20-40	7.5-10	7.5-10	37.5-50	22.5-30	10-15	156-222 even yr. 221-317 odd yr.

Appendix Table 8. (Continued)

- 1/ Escapement estimate derived from peak counts or calculated from counts made throughout the spawning season. When series counts were available, the total fish/days was divided by average stream life (2.5 weeks) to estimate total escapement.
- 2/ Weir counts.
- 3/ Does not contain F.R.E.D. egg facility pink salmon adult harvests of 3,400 in 1975; 10,814 in 1976; 6,528 in 1977; 21,100 in 1978; 21,200 in 1979; 26,897 in 1980; 20,606 in 1981; 32,000 in 1982, 53,800 in 1983, 42,000 in 1984 and 43,000 in 1985.
- 4/ Due to flooding, expanded aerial survey counts were used to fill vacancies in ground counts.
- 5/ An additional 20,000 adults are needed for hatchery egg-take requirements.
- 6/ Escapement ranges have been increased to 25-35,000 for Windy Left and 70-100,000 in Port Dick in years where large numbers of upstream spawners return.
- 7/ 3,000 pinks transplanted in Scurvey Creek in 1980.
- 8/ 50 and 1,000 chums transplanted in Scurvey Creek in 1980 and 1981, respectively, along with 3,600 pinks in 1981.

Appendix Table 9. Estimated Chum Salmon Escapements in Thousands of Fish in the Major Spawning Systems in Lower Cook Inlet. 1/

Year	Port Graham	Dogfish Lagoon	Rocky River	Pt.Dick Head	Island Creek	Big Kamishak	Little Kamishak	McNeil River	Bruin Bay	Ursus Cove	Cottonwood Creek	Iniskin Bay	Total
1964	1.0	12.0	5.0	8.0	8.0	25.0	*	90.0	*	*	*	11.0	160.0
1965	*	3.5	*	3.5	4.0	*	*	*	*	*	*	0.7	11.7
1966	*	11.0	7.0	4.0	6.0	5.0	0.5	*	*	*	*	*	33.5
1967	*	15.0	5.0	3.0	5.0	*	*	*	*	*	*	*	28.0
1968	1.5	1.5	3.0	20.0	1.5	*	*	*	*	*	5.0	5.0	37.5
1969	*	*	3.0	4.5	4.0	*	*	*	*	*	*	*	11.5
1970	0.9	5.0	*	6.0	8.5	*	*	*	*	*	0.6	*	21.0
1971	1.0	5.0	7.0	3.0	3.5	*	*	*	1.0	*	9.0	13.0	42.5
1972	1.5	3.0	3.0	6.0	2.0	*	*	*	1.0	1.6	4.0	10.0	32.1
1973	2.0	1.0	2.0	9.0	7.0	4.0	1.0	10.0	8.0	3.0	4.0	12.0	63.0
1974	0.5	0.6	1.0	0.8	5.0	7.1	0.6	1.5	3.0	3.5	2.5	7.0	33.1
1975	3.0	5.0	25.0	4.0	7.4	1.1	1.9	1.5	1.5	5.0	8.0	7.0	70.4
1976	0.4	3.0	12.0	1.5	1.0	24.0	21.0	10.0	4.0	6.0	5.0	13.5	101.4
1977	5.2	6.4	10.5	5.0	11.1	*	*	20.0	18.0	9.3	10.0	4.4	99.9
1978	4.8	9.3	6.3	8.9	16.9	23.0	30.0	45.0	4.0	9.7	12.5	11.4	181.8
1979	2.2	8.2	35.0	4.0	16.8	15.0	15.0	8.0	15.0	5.0	2.5	4.0	130.7
1980	1.1	4.0	23.0	4.2	10.9	10.0	13.0	8.0	15.0	8.0	4.2	9.3	110.7
1981	4.8	11.5	12.5	4.1	17.5	11.0	6.0	30.0	10.0	10.0	9.0	9.0	135.4
1982	2.5	8.5	2.8	1.7	8.7	25.0	18.0	25.0	10.0	9.0	7.0	12.8	131.0
1983	1.9	5.3	4.0	4.5	36.2	25.0	25.0	48.0	5.5	7.7	8.3	12.0	183.4
1984	2.1	8.6	3.5	2.7	25.6	19.0	12.0	21.0	8.0	7.0	6.5	9.8	125.8
1985	0.5	4.9	2.5	1.0	9.1	6.0	4.5	9.5	2.0	3.0	3.0	5.0	51.0
22 Year													
Total	36.9	132.3	173.1	109.4	215.7	200.2	148.5	327.5	106.0	87.8	101.1	156.9	1,795.4
Avg.	2.1	6.3	8.7	5.0	9.8	14.3	11.4	23.4	7.1	6.3	5.9	8.7	81.6
Escap.													
Goal	4.0-5.0	10-15	20-40	4.0-5.0	10-15	20-50	20-30	20-50	5-10	8-12	10-15	10-15	141-262

* No surveys conducted due to numerous factors: i.e weather, money.

1/ Most of these estimated escapements are either peak counts from aerial surveys or adjusted figures from aerial surveys based on survey conditions and time of surveys.

Appendix Table 10. Estimated sockeye salmon escapements in thousands of fish in major spawning systems in Lower Cook Inlet. 1/

Year	English Bay	Anderson Beach	Delight Lake	Desire Lake	Bear Lake	Aialik Lake	Mikfik Lake	Chenik Lake	Amakde. Creek	Kam. River	Doug. River	Doug. Beach	Total
1959	5.0		5.0	-	-	-	1.0	-	-				11.0
1960	16.0		1.0	4.0	9.3	-	-	0.8	1.5		0.4		33.0
1961	10.0	1.0	10.0	10.0	3.0	10.0	3.0	0.1	2.5		-		49.6
1962	2.0	0.2	5.0	4.0	3.6	16.0	2.6	1.5	2.5		2.5		39.9
1963	10.0		8.0	1.4	8.9	20.0	0.2	0.3	7.0				55.8
1964	-		0.3	10.0	4.7	2.0	-	-	-				17.0
1965	3.0		-	-	3.8	-	-	-	-				6.8
1966	3.0		4.3	9.0	1.9	4.0	-	0.2	2.0				24.4
1967	6.0		-	0.3	3.3	-	-	2.5	0.2				12.3
1968	-		-	0.3	59.0	-	0.7	-	-				60.0
1969	5.0		-	8.0	21.2	-	-	-	1.5				35.7
1970	8.0		4.6	2.0	5.8	-	1.0	-	0.3				21.7
1971	6.5		5.0	5.0	0.4	3.0	5.0	2.0	1.2				28.1
1972	14.5		10.0	8.0	0.7	0.6	13.0	0.7	1.0				48.5
1973	4.4		2.5	5.2	0.2	1.5	2.7	0.3	2.2				19.0
1974	-		-	-	0.1	2.2	0.9	0.1	0.4				3.7
1975	2.5		2.0	6.5	+	8.0	6.0	0.1	0.8				25.9
1976	6.0		6.0	11.0	0.6	8.0	10.0	0.9	1.6		0.2	0.1	44.4
1977	12.5		5.2	10.7	+	5.0	9.8	0.2	2.6		2.6	0.4	49.0
1978	13.5	0.6	8.0	10.0	+	3.0	12.0	0.1	2.6	1.0	-	0.1	47.4
1979	4.4		8.0	12.0	+	5.0	6.0	+	1.0	0.4	-	0.3	37.1
1980	12.0	0.3	10.0	17.0	1.5	6.6	6.5	3.5	2.6	0.1	0.4	0.5	61.0
1981	10.5		7.3	12.0	0.7	1.8	5.3	2.5	1.9	0.8	0.2	0.3	43.3
1982	20.0	0.6	25.0	18.0	0.5	22.4	35.0	8.0	3.2	10.0	4.2	1.6	148.5
1983	12.0	0.5	7.0	12.0	0.7	20.0	7.0	11.0	1.2	5.0	0.5	0.4	77.3
1984	11.1	1.2	10.5	15.0	0.5	22.0	6.0	13.0	1.4	2.5	0	0.1	83.3
1985	5.0	0.1	26.0	18.0	1.1	8.0	20.0	3.5	0.9	0.8	+	+	83.4
Total	202.9	4.5	170.7	209.4	131.5	169.1	153.7	51.3	42.1	20.6	11.0	3.8	1,167.1
Ave.	8.5	0.6	7.8	8.7	5.1	8.5	7.3	2.4	1.8	2.6	1.1	0.4	43.2
Esc.Goal	10-20	2.0	10.0	10.0	0.5-1.0	2.5-5.0	5.0	10.0	1.0	*	*	*	51.0-64.0

* No escapement goal set.

1/ Most escapements are estimated from peak aerial survey counts or are adjusted figures from aerial surveys based on weather conditions.

2/ Limited by Bear Lake Management Plan since 1971.

Appendix Table 11. Summary of return per spawner and forecast variations which have occurred in the pink salmon runs to the Southern and Outer districts of Cook Inlet, 1964-1983.

Brood Year	Escapement	Return	Return/Spawner	Forecast	Variation from Forecast	
1964	269.9	828	3.07	1,300	-	36.3
1965	142.3	478	3.36	500	-	4.4
1966	252.0	542	2.15	462	+	17.3
1967	122.5	238	1.94	500	-	52.4
1968	196.3	699	3.56	2,000	-	65.0
1969	115.2	615	5.34	640	-	3.9
1972	43.9	91	2.07	340	-	73.5
1973	111.3	1,298	11.66	620	+	109.4
1974	40.2	197	4.90	780	-	74.9
1975	240.8	1,652	6.86	845	+	102.0
1976	86.6	488	3.90 2/	635	-	24.0
1977	361.3	3,507	8.67 2/	1,647 3/	+	112.9
1978	147.3	899	3.96 2/	1,295 3/	-	30.6
1979	574.7	3,706	4.68 2/	2,992 3/	+	23.9
1980	266.3	532	1.13 2/	1,053 3/	-	49.6
1981	409.2	1,106	1.13 2/	2,724 3/	-	59.4
1982 1/	168.3	595	1.78 2/	1,096 3/	-	45.7
1983 1/	261.9	1,480	3.64 2/	1,217 3/	-	21.6
Total	3,810.0	18,951	74.82	20,646		
Average	211.7	1,053	4.16	1,147	-	11.82

1/ Preliminary data.

2/ Calculated by subtracting hatchery return from total

return: 150,000 in 1978

370,000 in 1979

315,000 in 1980

1,019,000 in 1981

232,000 in 1982

645,000 in 1983

285,000 in 1984

528,000 in 1985

3/ Includes projected hatchery return.

Appendix Table 12. Pink salmon catch in thousands of fish
for fishing districts in Lower Cook Inlet,
1936- 1985. 1/

Year	Catch	Year	Catch	Year	Catch
1936	526	1956	208	1976	136
1937	457	1957	286	1977	1,292
1938	345	1958	950	1978	353
1939	292	1959	124	1979	2,987
1940	1,659	1960	612	1980	890
1941	692	1961	303	1981	3,276
1942	695	1962	2,248	1982	552
1943	1,361	1963	204	1983	927
1944	1,446	1964	1,055	1984 2/	698
1945	1,302	1965	116	1985	1,230
1946	870	1966	579		
1947	1,396	1967	375		
1948	591	1968	585		
1949	366	1969	202		
1950	311	1970	574		
1951	378	1971	393		
1952	972	1972	29		
1953	513	1973	307		
1954	271	1974	51		
1955	1,184	1975	1,063		
			Total	Average	
50 Year			37,305	746	
Odd-Year (25)			21,026	841	
Even-Year (25)			17,206	688	

1/ Data source: 1953-63 data very sketchy - U.S.F. & W.S.
Statistical Digest #50 and INPFC Document #1134, Rich &
Ball; ADF&G computer runs, 1960-1983.

2/ Preliminary data.

Appendix Table 13. Pink salmon catch for Lower Cook Inlet in thousands of fish by bay during odd numbered years. 1/

Catch Location	1959	1961	1963	1965	1967	1969	1971	1973	1975
Humpy Creek	13.2	67.9	57.4	13.8	40.4	0.6	11.4	44.3	339.4
Tutka Bay	14.4	106.8	37.7	44.6	31.6	32.4	10.3	20.0	89.2
Seldovia Bay	4.9	15.1	1.6	19.2	11.7	28.7	27.3	19.4	429.6
Port Graham Bay	5.3	1.0	2.7	12.4	5.1	2.0	1.0	13.9	18.3
Dogfish Bay	1.6	0	0	0.1	2.3	0	10.4	0.3	0
Port Chatham	1.2	0	0.8	0	0	0	26.3	12.0	16.0
Windy Bay	3.1	2.2	0	5.4	0	0	57.3	68.5	18.1
Rocky Bay	2.3	0	1.4	0.1	0	0	0.1	0.2	0
Port Dick Bay	28.2	92.9	19.0	15.3	259.9	51.5	94.6	96.6	90.3
Nuka Bay	33.3	2.0	0.3	0	0.1	0	119.7	8.1	35.4
Resurrection Bay	8.4	0	0	0	1.2	0	0	0	0
Bruin Bay	0	0	12.3	0.9	2.1	0	11.7	0	0
Rocky-Ursus Coves	3.7	2.7	44.2	0	13.0	52.8	16.4	7.9	0
Iniskin and Cottonwood Bays	1.5	3.3	21.8	0	0.1	26.0	0	4.7	0
Miscellaneous	3.6	9.5	4.4	3.8	8.0	8.4	6.4	11.5	27.1
Total	124.7	303.4	203.6	115.6	375.5	202.4	392.9	307.4	1,063.4

Catch Location	1977	1979	1981	1983	1985
Humpy Creek	26.9	298.0	250.9	26.9	11.4
Tutka Bay	21.9	411.3	1,023.5	615.5	491.2
Seldovia Bay	47.6	140.8	126.4	43.1	3.8
Port Graham Bay	44.8	124.7	45.9	4.1	12.5
Dogfish Bay	5.0	7.4	22.9	0.2	0
Port Chatham	1.4	174.4	47.6	3.0	7.0
Windy Bay	173.2	551.4	82.9	0	4.8
Rocky Bay	11.6	122.2	16.5	1.3	0
Port Dick Bay	880.3	962.9	1,140.9	138.6	455.6
Nuka Bay	56.3	121.7	395.1	56.4	150.8
Resurrection Bay	0	0	32.6	27.1	74.6
Bruin Bay	6.2	40.3	51.9	0.3	0
Rocky-Ursus Cove	0	14.4	14.1	0	0
Iniskin and Cottonwood Bays	0.1	0.2	0	0.3	0
Miscellaneous	16.9	16.8	25.0	10.7	18.0
Total	1,292.2	2,986.5	3,276.2	927.5	1,229.7

1/ Data source IBM computer runs, 1959-83.

2/ Preliminary data.

Appendix Table 14. Pink salmon catch for Lower Cook Inlet in thousands of fish by bay during even numbered years. 1/

Catch Location	1960	1962	1964	1966	1968	1970	1972	1974
Humpy Creek	71.6	108.8	82.4	40.7	43.9	114.1	2.1	35.4
Tutka Bay	87.6	279.5	100.9	53.5	26.9	43.9	5.2	5.5
Seldovia Bay	42.6	142.8	37.4	44.1	23.6	28.6	0.2	3.5
Port Graham Bay	7.1	18.1	38.4	5.1	23.0	12.5	1.1	4.5
Dogfish Bay	1.8	1.4	0.1	7.1	0	9.8	0.3	0
Port Chatham	15.7	102.2	67.1	6.7	10.0	1.9	0	0
Windy Bay	29.2	85.5	68.6	20.1	3.4	0.8	0	0
Rocky Bay	17.0	225.9	53.2	0	10.8	39.8	0	0
Port Dick Bay	257.4	1,118.3	526.3	296.8	55.0	193.8	0	0.6
Nuka Bay	26.6	129.8	23.8	0	90.2	48.4	0.3	0.7
Resurrection Bay	5.8	0.1	0.3	0	37.4	40.2	18.2	0
Bruin Bay	2.6	0	0	0	126.2	10.2	0	0
Rocky-Ursus Coves	6.6	3.2	13.5	2.9	18.0	7.5	0	0
Iniskin and Cottonwood Bays	2.1	3.2	4.3	0	9.9	3.5	0	0
Miscellaneous	37.9	29.5	39.1	102.2	107.1	19.3	1.3	0.4
Total	611.6	2,248.3	1,055.4	579.2	585.4	574.3	28.7	50.6

Catch Location	1976	1978	1980	1982	1984
Humpy Creek	73.1	44.0	53.3	6.0	40.8
Tutka Bay	18.0	167.9	312.5	184.9	236.0
Seldovia Bay	3.0	35.4	81.7	70.3	0.2
Port Graham Bay	3.9	4.0	30.5	35.4	0.3
Dogfish Bay	0	0	4.7	1.7	1.4
Port Chatham	0	0	1.8	12.3	0
Windy Bay	0	0	0	0	0
Rocky Bay	0	0	1.4	0	0
Port Dick Bay	0	63.6	133.3	43.9	69.6
Nuka Bay	0.1	6.3	12.8	9.3	0.7
Resurrection Bay	35.4	29.7	155.8	137.4	118.5
Bruin Bay	0	0	99.4	13.3	123.3
Rocky-Ursus Coves	0	0.1	0	20.0	17.6
Iniskin and Cottonwood Bays	0.1	0.1	0.1	0.6	0.1
Miscellaneous	2.8	1.5	2.4	16.4	89.7
Total	136.4	352.6	889.7	551.5	698.3

1/ Data resource IBM computer runs, 1960-82.

2/ Preliminary data.

Appendix Table 15. Chum salmon catch for lower Cook Inlet in thousands of fish by bay by year. 1/

Catch Location	1959	1960	1961	1962	1963	1964	1965	1966	1967
Tutka	0.1	2.4	1.8	2.9	2.4	5.6	1.1	3.9	4.0
Port Graham	2.3	1.8	0.5	4.0	3.8	2.1	0.9	5.3	3.0
Dogfish	4.9	0.4	0.1	0	0.2	0	0	7.0	15.3
Port Chatham	1.0	2.5	0	2.8	4.3	5.2	0	17.8	0
Rocky-Windy	14.9	6.4	2.2	8.5	0.3	33.8	8.1	1.7	0
Port Dick	42.4	53.9	36.8	112.0	110.8	227.4	14.2	60.9	36.0
Nuka	1.7	8.4	1.7	0.5	1.5	0	0	0	1.5
Resurrection	0.1	0.5	0	0	0	0	0	0	0.1
Douglas River	0.2	0	0	0	0	0	0	0	0
Kamishak River	0	0	0	0	0	0	0	0	0
McNeil River	0	0.4	0	0	0	2.7	0.9	0	0.4
Bruin	0	0.3	0.5	0	0.1	0	0.4	0	1.0
Ursus-Rocky Coves	8.5	8.6	1.8	1.1	2.8	1.2	0	4.0	2.9
Cottonwood and Iniskin	12.1	35.4	10.2	41.7	10.9	38.4	0	0	19.0
Miscellaneous	23.7	0	0	5.8	1.4	6.9	2.5	28.5	2.2
Total	110.8	116.1	55.6	179.3	138.5	323.3	28.1	129.1	85.4

Catch Location	1968	1969	1970	1971	1972	1973	1974	1975	1976
Tutka	1.3	0.7	1.6	0.5	1.3	0.8	1.4	2.0	0.9
Port Graham	2.3	1.3	4.8	2.0	3.2	2.6	1.0	2.2	0.5
Dogfish	0.1	0	50.9	114.5	41.1	0.4	0	0	0
Port Chatham	1.0	0	0.1	2.4	0	0.2	0	0.6	0
Rocky-Windy	0.5	0	39.4	1.4	0	0.9	0	0.3	0
Port Dick	10.9	5.4	21.8	0.7	0	33.4	8.1	6.8	0
Nuka	6.9	0	5.9	0.1	2.3	40.8	3.9	3.6	0.4
Resurrection	0.7	0	0.4	0.4	0.7	0	0	0	0
Douglas River	0	0	0	0	0	0	0	0.1	7.1
Kamishak River	3.7	0	0	0	2.4	0	0	0	10.5
McNeil River	8.3	4.4	1.9	0	2.3	0	2.0	0	16.9
Bruin	7.5	0	12.8	1.6	1.8	0	0.7	0	0
Ursus-Rocky Coves	1.0	3.6	8.9	10.3	0.2	5.7	0	2.0	2.8
Cottonwood and Iniskin	25.5	44.4	71.9	14.5	19.7	29.9	0	2.8	11.5
Miscellaneous	5.4	1.4	3.6	0.2	0.5	0.8	2.1	1.2	0.2
Total	75.1	61.2	224.2	148.6	75.5	115.5	19.2	21.6	50.8

Appendix Table 15. (Continued)

Catch Location	1977	1978	1979	1980	1981	1982	1983	1984 2/
Tutka	0.8	2.6	4.9	1.8	10.8	8.3	9.8	2.0
Port Graham	5.0	2.4	4.3	2.5	11.2	7.4	1.7	0.3
Dogfish	9.4	0	8.4	2.1	71.8	15.6	2.8	2.6
Port Chatham	0.1	0	1.7	1.3	59.5	14.1	2.1	0
Rocky-Windy	17.7	0	76.7	2.1	7.4	0	3.2	0
Port Dick	25.6	9.1	79.0	19.0	95.8	30.3	18.0	1.0
Nuka	17.4	0.4	14.7	7.8	3.8	0.9	1.1	0.6
Resurrection	0	0.1	0	0.7	3.3	7.7	6.9	3.1
Douglas River	4.0	2.9	0.7	10.0	46.7	37.1	27.2	17.6
Kamishak River	0	23.9	17.8	0	8.6	9.2	23.9	6.0
McNeil River	38.5	4.9	6.5	6.3	11.6	32.6	67.9	11.5
Bruin	0	0	4.0	10.6	1.7	1.3	2.6	10.9
Ursus-Rocky Coves	7.8	1.9	0.5	0.3	1.5	7.2	0	3.8
Cottonwood and Iniskin	15.3	14.9	0.2	5.4	3.5	21.6	21.4	20.2
Miscellaneous	4.2	10.4	3.6	3.6	1.9	5.8	3.7	14.2
Total	145.8	73.5	223.0	73.5	339.1	198.0	192.3	93.8

Catch Location	1985
Tutka	3.2
Port Graham	1.3
Dogfish	0
Port Chatham	1.3
Rocky-Windy	0
Port Dick	9.6
Nuka	0.8
Resurrection	3.0
Douglas	8.0
Kamishak River	0.1
McNeil River	0
Bruin	0
Ursus-Rocky Coves	0
Cottonwood and Iniskin	0
Miscellaneous	3.3
Total	30.6

1/ Data source IBM computer runs, 1959-83.

2/ Preliminary data.

Appendix Table 16. Sockeye salmon catch for Lower Cook Inlet in thousands of fish by bay by year. 1/

Catch Location	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Resurrection Bay	0	0.1	0	0	0	0	0	0	0	74.5	99.4	1.7
Aialik Bay	1.3	0.2	4.3	2.6	0.5	0	0	0	0	0	0	3.1
Nuka Bay	8.3	6.7	8.2	5.1	0.5	0	2.0	0	2.2	1.5	0	1.0
Humpy Creek	1.3	1.4	0.8	2.0	1.1	0.7	1.4	1.5	1.9	2.7	1.6	1.3
Tutka Bay	1.1	1.7	3.0	5.2	2.9	9.0	5.2	6.0	11.8	6.3	4.9	6.0
Seldovia Bay	0.4	1.2	1.2	1.7	1.2	2.1	0.9	1.0	2.2	1.9	0.8	1.2
Port Graham Bay	6.6	7.8	5.2	6.8	7.8	5.5	3.5	2.7	10.4	7.7	4.3	3.7
Kamishak Bay	1.5	0.8	0	0	0	2.0	0.8	0	0.2	0.5	10.7	2.9
Miscellaneous	1.1	4.8	1.0	1.9	1.1	1.4	2.0	4.1	3.0	0.1	11.0	1.4
Total	21.6	24.7	22.8	25.3	15.1	20.7	14.0	15.3	29.0	95.2	122.8	22.3

Catch Location	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Resurrection Bay	2.2	0.1	0	0	0	0	0	0	0	0	0.6	0
Aialik Bay	0	0.3	3.1	0.2	0.6	0	5.8	0	0	0.1	8.7	3.0
Nuka Bay	1.6	26.1	1.5	0.2	0	18.9	32.5	10.7	24.4	21.5	17.2	66.3
Humpy Creek	1.3	3.7	2.1	3.0	3.5	5.4	3.8	12.9	6.2	11.5	11.3	1.2
Tutka Bay	10.0	14.8	8.1	10.8	12.6	14.2	21.0	92.1	15.6	13.2	40.9	15.8
Seldovia Bay	1.5	2.3	2.2	2.3	2.1	2.1	3.0	5.6	2.6	1.6	5.3	5.0
Port Graham Bay	5.6	10.5	11.7	10.9	9.2	13.6	26.6	30.5	12.9	16.5	20.3	21.5
Kamishak Bay	0	0	0	0	0	4.0	7.4	4.6	1.8	3.9	5.0	18.0
Miscellaneous	0	1.0	5.0	0	1.0	0	0	0	9.0	1.1	1.0	0.5
Total	22.2	57.9	29.2	27.4	28.1	58.2	100.1	156.4	64.4	69.4	110.3	131.3

Appendix Table 16 (cont.). Sockeye salmon catches for Lower Cook Inlet in thousands of fish by bay by year.

Catch Location	1983	1984 2/	1985 2/
Resurrection Bay	0	3.4	0.3
Aialik Bay	25.9	50.4	24.1
Nuka Bay	16.8	28.4	91.8
Humpy Creek	77.7	104.4	63.2
Tutka Bay	35.9	9.5	14.9
Seldovia Bay	6.7	0	2.6
Port Graham Bay	13.4	0	3.5
Kamishak Bay	11.2	24.5	78.3
Miscellaneous	0	50.2	0
Total	187.6	270.8	278.7

1/ Data source IBM computer runs, 1959-83.
2/ Preliminary data.

Appendix Table 17. Salmon catch by species for set gillnets in the Southern District of Lower Cook Inlet, 1958-1985. 1/

Year	Kings	Reds	Cohos	Pinks	Chums	Total
1958	42	3,872	165	2,293	2,274	8,646
1959	49	6,148	377	4,342	361	11,277
1960	6	7,007	398	3,894	347	11,652
1961	15	8,631	216	8,201	425	17,488
1962	13	11,793	1,281	12,207	1,558	26,852
1963	9	8,305	314	1,490	812	10,930
1964	5	16,632	1,576	25,935	1,972	46,120
1965	9	10,998	314	7,267	679	19,267
1966	31	10,317	505	24,981	1,790	37,624
1967	112	22,097	504	13,962	1,929	38,604
1968	31	15,741	1,431	12,614	1,289	31,106
1969	33	11,570	246	10,717	1,298	23,864
1970	26	11,455	1,154	18,512	1,575	32,722
1971	41	18,398	1,449	8,564	1,352	29,804
1972	69	31,340	323	6,303	2,819	40,854
1973	134	23,970	1,089	20,222	2,374	47,789
1974	175	26,966	3,010	11,097	2,713	43,991
1975	96	26,588	2,337	49,490	4,020	82,531
1976	176	33,993	1,321	13,431	1,353	50,274
1977	175	54,404	869	38,064	2,765	96,277
1978	1,052	86,934	3,053	11,556	4,117	106,712
1979	483	34,367	7,595	69,368	5,266	117,079
1980	225	29,922	8,038	26,613	2,576	67,374
1981	222	53,665	6,735	68,794	8,524	137,940
1982	894	42,389	5,557	15,838	7,113	71,791
1983	822	41,707	1,955	20,377	4,377	69,238
1984 2/	643	45,806	2,979	20,764	5,412	75,604
1985	958	23,188	3,908	22,876	4,217	55,147
28 Year Total	6,546	718,233	58,699	549,772	75,307	1,408,557
28 Year Average	234	25,651	2,096	19,635	2,690	50,306
% of Total	0.46	50.99	4.17	39.03	5.35	100.00

1/ Data source: final IBM computer runs 1958-1983.

2/ Preliminary data.

Appendix Table 18. Lower Cook Inlet total salmon catch by district, 1956-1985. 1/

Year	Southern	Outer	Kamishak	Eastern	Total
1956	242,058	64,718	15,897	19,449	342,122
1957	209,138	290,473	21,125	428	521,164
1958	253,457	841,957	0	200	1,095,614
1959	72,711	137,211	30,491	23,294	263,707
1960	227,577	460,754	56,698	10,145	755,174
1961	206,075	158,832	18,499	0	383,406
1962	591,850	1,821,382	43,654	3,787	2,460,673
1963	124,593	140,915	96,309	2,262	364,079
1964	304,213	1,038,790	65,098	856	1,408,957
1965	104,646	46,345	7,557	0	158,548
1966	223,357	489,849	15,902	0	729,108
1967	145,110	302,028	41,818	3,923	492,879
1968	181,884	213,746	248,307	116,827	760,764
1969	86,475	57,036	144,166	99,423	387,130
1970	233,564	426,002	122,826	43,329	825,721
1971	74,518	431,520	58,545	3,758	568,341
1972	46,759	70,942	26,794	19,930	164,425
1973	126,687	278,695	48,181	808	454,371
1974	81,865	14,037	7,517	517	103,936
1975	929,711	172,368	17,370	125	1,119,574
1976	138,961	19,398	55,060	35,673	249,092
1977	219,503	1,233,262	79,498	10,714	1,542,977
1978	404,203	100,280	55,854	30,422	590,759
1979	1,044,517	2,151,556	91,098	296	3,287,467
1980	537,535	208,827	144,157	157,047	1,047,566
1981	1,561,782	1,971,187	146,416	58,008	3,737,393
1982	366,546	197,335	209,527	155,379	928,787
1983	842,497	243,900	162,652	70,614	1,319,663
1984 2/	513,703	120,649	245,602	200,866	1,080,820
1985	613,821	725,252	88,613	122,733	1,550,419
30 Year					
Total	10,709,316	14,429,246	2,365,261	1,190,813	28,694,636
30 Year					
Average	356,977	480,975	78,842	39,694	956,488
% of					
Total	37.32	50.29	8.24	4.15	100.00

1/ Data source: Final IBM computer runs, 1955-1983 and processor catch reports.

2/ Preliminary data.

Appendix Table 19. Southern district salmon catch by species, 1956-1985. 1/

Year	King	Sockeye	Coho	Pink	Chum	Total
1956	310	33,054	4,693	150,486	53,515	242,058
1957	286	19,431	1,507	130,511	57,403	209,138
1958	119	17,731	1,713	209,798	24,096	253,457
1959	71	7,720	709	50,244	13,967	72,711
1960	12	12,239	1,237	209,989	4,100	227,577
1961	39	10,104	1,149	191,867	2,916	206,075
1962	58	16,569	2,095	564,050	9,078	591,850
1963	88	13,142	4,020	99,820	7,523	124,593
1964	84	17,283	8,905	266,412	11,529	304,213
1965	10	11,185	733	90,260	2,458	104,646
1966	60	12,192	4,807	177,544	28,754	223,357
1967	173	26,349	2,379	92,793	23,416	145,110
1968	61	18,716	4,671	154,033	4,403	181,884
1969	59	12,578	485	70,753	2,600	86,475
1970	91	13,480	3,705	208,114	8,174	233,564
1971	41	18,403	3,151	50,066	2,857	74,518
1972	69	31,345	1,283	9,126	4,936	46,759
1973	139	24,145	1,241	97,574	3,588	126,687
1974	182	27,029	3,054	48,875	2,725	81,865
1975	142	27,393	3,039	893,709	5,428	929,711
1976	442	35,280	1,905	99,817	1,517	138,961
1977	182	54,663	1,239	156,696	6,723	219,503
1978	1,511	141,088	4,318	251,761	5,525	404,203
1979	1,199	37,342	10,688	982,529	12,759	1,044,517
1980	414	42,929	11,568	478,019	4,605	537,535
1981	1,024	77,880	7,976	1,451,022	23,880	1,561,782
1982	926	43,433	7,165	296,556	18,466	366,546
1983	858	133,671	3,589	690,098	14,281	842,497
1984 2/	661	163,244	3,415	336,785	9,598	513,703
1985	1,007	84,149	4,258	518,898	5,509	613,821
30 Year						
Total	10,318	1,183,767	110,697	9,028,205	376,329	10,709,316
30 Year						
Average	344	39,459	3,690	300,940	12,544	356,977
% of						
Total	0.10	11.05	1.03	84.30	3.52	100.00

1/ Data source: Final IBM computer runs, 1955-1983, and processor catch reports.

2/ Preliminary data.

Appendix Table 20. Outer district salmon catch by species, 1956-1985. 1/

Year	King	Sockeye	Coho	Pink	Chum	Total
1956	23	2,889	190	42,368	19,248	64,718
1957	13	2,982	110	149,197	138,171	290,473
1958	1	1,719	83	739,768	100,386	841,957
1959	3	8,049	109	69,054	59,996	137,211
1960	4	11,614	574	381,375	67,187	460,754
1961	2	12,671	456	105,491	40,212	158,832
1962	2	8,697	1,893	1,684,023	126,767	1,821,382
1963	6	1,974	369	21,471	117,095	140,915
1964	2	1,370	431	767,473	269,514	1,038,790
1965	0	2,009	7	21,886	22,443	46,345
1966	1	3,120	357	398,751	87,620	489,849
1967	2	2,165	70	262,258	37,533	302,028
1968	1	1,550	106	191,691	20,398	213,746
1969	0	92	11	51,533	5,400	57,036
1970	5	4,177	243	302,831	118,746	426,002
1971	11	1,630	174	310,710	118,995	431,520
1972	7	26,423	17	1,005	43,490	70,942
1973	1	5,063	31	197,259	76,341	278,695
1974	1	399	28	1,678	11,931	14,037
1975	0	720	7	160,291	11,350	172,368
1976	7	18,886	0	93	412	19,398
1977	34	33,733	1,528	1,127,800	70,167	1,233,262
1978	236	10,695	45	70,080	19,224	100,280
1979	30	25,297	150	1,945,521	180,558	2,151,556
1980	10	22,514	16	154,041	32,246	208,827
1981	61	18,133	485	1,714,115	238,393	1,971,187
1982	129	66,781	92	67,456	62,877	197,335
1983	14	16,835	54	199,794	27,203	243,900
1984 2/	3	28,411	90	89,068	3,077	120,649
1985	19	91,957	3,210	618,222	11,844	725,252
30 Year Total	628	432,555	10,936	11,846,303	2,138,824	14,429,246
30 Year Average	21	14,419	365	394,877	71,294	480,975
% of Total	+	3.00	0.08	82.10	14.82	100.00

1/ Data source: Final IBM computer runs, 1955-1983, and processor catch reports.

2/ Preliminary data.

Appendix Table 21. Kamishak Bay district salmon catch by species, 1956-1985. 1/

Year	King	Sockeye	Coho	Pink	Chum	Total
1956	0	67	701	193	14,936	15,897
1957	0	4,335	29	5,905	10,856	21,125
1958	0	0	0	0	0	0
1959	0	1,549	43	5,325	23,574	30,491
1960	11	768	28	11,563	44,328	56,698
1961	0	1	14	6,019	12,465	18,499
1962	0	20	11	219	43,404	43,654
1963	2	4	97	82,314	13,892	96,309
1964	5	1,979	115	20,719	42,280	65,098
1965	0	808	122	3,452	3,175	7,557
1966	1	21	247	2,945	12,688	15,902
1967	1	182	74	17,340	24,221	41,818
1968	0	492	101	198,253	49,461	248,307
1969	2	10,723	121	80,157	53,193	144,196
1970	0	2,888	220	23,113	96,605	122,826
1971	0	3	121	32,094	26,327	58,545
1972	0	47	31	342	26,374	26,794
1973	0	1	28	12,568	35,584	48,181
1974	0	0	2,915	48	4,554	7,517
1975	0	29	3,041	9,432	4,868	17,370
1976	1	3,988	1,111	1,112	48,848	55,060
1977	1	7,425	105	6,308	65,659	79,498
1978	0	4,619	1,584	982	48,669	55,854
1979	9	1,778	1,116	58,484	29,711	91,098
1980	0	3,877	2,495	101,864	35,921	144,157
1981	1	4,972	1,845	66,097	73,501	146,416
1982	11	18,014	38,685	43,871	108,946	209,527
1983	1	11,207	7,138	1,405	142,901	162,652
1984 2/	2	24,642	13,230	137,133	70,595	245,602
1985	6	78,250	2,024	194	8,139	88,613
<hr/>						
30 Year						
Total	54	182,689	77,392	929,451	1,175,675	2,365,261
30 Year						
Average	2	6,090	2,580	30,982	39,189	78,842
% of						
Total	+	7.72	3.27	39.30	49.71	100.00

1/ Data source: Final IBM computer runs, 1955-1983, and processor catch reports.

2/ Preliminary data.

Appendix Table 22. Eastern district salmon catch by species,
1956-1985. 1/

Year	King	Sockeye	Coho	Pink	Chum	Total
1956	0	296	3,761	14,873	519	19,449
1957	120	169	119	0	20	428
1958	0	0	0	200	0	200
1959	58	4,319	5,491	125	13,301	23,294
1960	0	105	853	8,720	467	10,145
1961	0	0	0	0	0	0
1962	0	0	3,728	49	10	3,787
1963	0	1	2,250	11	0	2,262
1964	0	22	9	813	12	856
1965	0	0	0	0	0	0
1966	0	0	0	0	0	0
1967	0	348	203	3,097	275	3,923
1968	2	74,484	5	41,464	872	116,827
1969	3	99,403	6	1	10	99,423
1970	11	1,767	692	40,226	633	43,329
1971	21	2,198	1,115	1	423	3,758
1972	12	82	903	18,190	743	19,930
1973	5	0	801	2	0	808
1974	0	0	517	0	0	517
1975	1	0	124	0	0	125
1976	0	5	200	35,423	45	35,673
1977	0	5,776	360	1,349	3,229	10,714
1978	0	2	582	29,738	100	30,422
1979	0	0	296	0	0	296
1980	0	122	426	155,779	720	157,047
1981	0	9,270	472	44,987	3,279	58,008
1982	0	3,092	950	143,639	7,698	155,379
1983	0	25,932	594	36,154	7,934	70,614
1984 2/	47	54,459	536	135,290	10,534	200,866
1985	11	24,338	835	92,403	5,146	122,733
30 Year						
Total	291	306,190	25,828	802,534	55,970	1,190,813
30 Year						
Average	10	10,206	861	26,751	1,866	39,694
% of						
Total	0.03	25.71	2.17	67.39	4.70	100.00

1/ Data source: Final IBM computer runs, 1955-1983, and processor catch reports.

2/ Preliminary data.

Appendix Table 23. King salmon catch by district for Lower Cook Inlet, 1956-1985. 1/

Year	Southern	Outer	Kamishak	Eastern	Total
1956	310	23	0	0	333
1957	286	13	0	120	419
1958	119	1	0	0	120
1959	71	3	0	58	132
1960	12	4	11	0	27
1961	39	2	0	0	41
1962	58	2	0	0	60
1963	88	6	2	0	96
1964	84	2	5	0	91
1965	10	0	0	0	10
1966	60	1	1	0	62
1967	173	2	1	0	176
1968	61	1	0	2	64
1969	59	0	2	3	64
1970	91	5	0	11	107
1971	41	11	0	21	73
1972	69	7	0	12	88
1973	139	1	0	5	145
1974	182	1	0	0	183
1975	142	0	0	1	143
1976	442	7	1	0	450
1977	182	34	1	0	217
1978	1,511	236	0	0	1,747
1979	1,199	30	9	0	1,238
1980	414	10	0	0	424
1981	1,024	61	1	0	1,086
1982	926	129	11	0	1,066
1983	858	14	1	0	873
1984 2/	661	3	2	47	713
1985	1,007	19	6	11	1,043
30 Year Total	10,318	628	54	291	11,291
30 Year Average	344	21	2	10	376
% of Total	91.38	5.56	0.48	2.58	100.00

1/ Data source: Final IBM computer runs, 1955-1983 and processor catch reports.

2/ Preliminary data.

Appendix Table 24. Sockeye salmon catch by district for Lower Cook Inlet, 1956-1985. 1/

Year	Southern	Outer	Kamishak	Eastern	Total
1956	33,054	2,889	67	296	36,306
1957	19,431	2,982	4,335	169	26,917
1958	17,731	1,719	0	0	19,450
1959	7,720	8,049	1,549	4,319	21,637
1960	12,239	11,614	768	105	24,726
1961	10,104	12,671	1	0	22,776
1962	16,569	8,697	20	0	25,286
1963	13,142	1,974	4	1	15,121
1964	17,283	1,370	1,979	22	20,654
1965	11,185	2,009	808	0	14,002
1966	12,192	3,120	21	0	15,333
1967	26,349	2,165	182	348	29,044
1968	18,716	1,550	492	74,484	95,242
1969	12,578	92	10,723	99,403	122,796
1970	13,480	4,177	2,888	1,767	22,312
1971	18,403	1,630	3	2,198	22,234
1972	31,345	26,423	47	82	57,897
1973	24,145	5,063	1	0	29,209
1974	27,029	399	0	0	27,428
1975	27,393	720	29	0	28,142
1976	35,280	18,886	3,988	5	58,159
1977	54,663	33,733	7,425	5,776	101,597
1978	141,088	10,695	4,619	2	156,404
1979	37,342	25,297	1,778	0	64,417
1980	42,929	22,514	3,877	122	69,442
1981	77,880	18,133	4,972	9,270	110,255
1982	43,433	66,781	18,014	3,092	131,320
1983	133,671	16,835	11,207	25,932	187,645
1984 2/	163,244	28,411	24,642	54,459	270,756
1985	84,149	91,957	78,250	24,338	278,694
30 Year Total	1,183,767	432,555	182,689	306,190	2,105,201
30 Year Average	39,459	14,419	6,090	10,206	70,174
% of Total	56.23	20.55	8.68	14.54	100.00

1/ Data source: Final IBM computer runs, 1955-1983 and processor catch reports.

2/ Preliminary data.

Appendix Table 25. Coho salmon catch by district for Lower Cook Inlet, 1956-1985. 1/

Year	Southern	Outer	Kamishak	Eastern	Total
1956	4,693	190	701	3,761	9,345
1957	1,507	110	29	119	1,765
1958	1,713	83	0	0	1,796
1959	709	109	43	5,491	6,352
1960	1,237	574	28	853	2,692
1961	1,149	456	14	0	1,619
1962	2,095	1,893	11	3,728	7,727
1963	4,020	369	97	2,250	6,736
1964	8,905	431	115	9	9,460
1965	733	7	122	0	862
1966	4,807	357	247	0	5,411
1967	2,379	70	74	203	2,726
1968	4,671	106	101	5	4,883
1969	485	11	121	6	623
1970	3,705	243	220	692	4,860
1971	3,151	174	121	1,115	4,561
1972	1,283	17	31	903	2,234
1973	1,241	31	28	801	2,101
1974	3,054	28	2,915	517	6,514
1975	3,039	7	3,041	124	6,211
1976	1,905	0	1,111	200	3,216
1977	1,239	1,528	105	360	3,232
1978	4,318	45	1,584	582	6,529
1979	10,688	150	1,116	296	12,250
1980	11,568	16	2,495	426	14,505
1981	7,976	485	1,845	472	10,778
1982	7,165	92	38,685	950	46,892
1983	3,589	54	7,138	594	11,375
1984 2/	3,415	90	13,230	536	17,271
1985	4,259	3,210	2,024	835	10,327
30 Year Total	110,697	10,936	77,392	25,828	224,853
30 Year Average	3,690	365	2,580	861	7,495
% of Total	49.41	4.88	34.55	11.16	100.00

1/ Data source: Final IBM computer runs, 1955-1983 and processor catch reports.

2/ Preliminary data.

Appendix Table 26. Pink salmon catch by district for Lower Cook Inlet, 1956-1985. 1/

Year	Southern	Outer	Kamishak	Eastern	Total
1956	150,486	42,368	193	14,873	207,920
1957	130,511	149,197	5,905	0	285,613
1958	209,798	739,768	0	200	949,766
1959	50,244	69,054	5,325	125	124,748
1960	209,989	381,375	11,563	8,720	611,647
1961	191,867	105,491	6,019	0	303,377
1962	564,050	1,684,023	219	49	2,248,341
1963	99,820	21,471	82,314	11	203,616
1964	266,412	767,743	20,719	813	1,055,417
1965	90,260	21,886	3,452	0	115,598
1966	177,544	398,751	2,945	0	579,240
1967	92,793	262,258	17,340	3,097	375,488
1968	154,033	191,691	198,253	41,464	585,441
1969	70,753	51,533	80,157	1	202,444
1970	208,114	302,831	23,113	40,226	574,284
1971	50,066	310,710	32,094	1	392,871
1972	9,126	1,005	342	18,190	28,663
1973	97,574	197,259	12,568	2	307,403
1974	48,875	1,678	48	0	50,601
1975	893,709	160,291	9,432	0	1,063,432
1976	99,817	93	1,112	35,423	136,445
1977	156,696	1,127,800	6,308	1,349	1,292,153
1978	251,761	70,080	982	29,738	352,561
1979	982,529	1,945,521	58,484	0	2,986,534
1980	478,019	154,041	101,864	155,779	889,703
1981	1,451,022	1,714,115	66,097	44,987	3,276,221
1982	296,556	67,456	43,871	143,639	551,522
1983	690,098	199,794	1,405	36,154	927,451
1984 2/	336,785	89,068	137,133	135,290	698,276
1985	518,898	618,222	194	92,403	1,229,717
30 Year Total	9,028,205	11,846,303	929,451	802,534	22,606,493
30 Year Average	300,940	394,877	30,982	26,751	753,550
% of Total	39.94	52.40	4.11	3.55	100.00

1/ Data source: Final IBM computer runs, 1955-1983 and processor catch reports.

2/ Preliminary data.

Appendix Table 27. Chum salmon catch by district for Lower Cook Inlet, 1956-1985. 1/

Year	Southern	Outer	Kamishak	Eastern	Total
1956	53,515	19,248	14,936	519	88,218
1957	57,403	138,171	10,856	20	206,450
1958	24,096	100,386	0	0	124,482
1959	13,976	59,996	23,574	13,301	110,838
1960	4,100	67,187	44,328	467	116,082
1961	2,916	40,212	12,465	0	55,593
1962	9,078	126,767	43,404	10	179,259
1963	7,523	117,095	13,892	0	138,510
1964	11,529	269,514	42,280	12	323,335
1965	2,458	22,443	3,175	0	28,076
1966	28,754	87,620	12,688	0	129,062
1967	23,416	37,533	24,221	275	85,445
1968	4,403	20,398	49,461	872	75,134
1969	2,600	5,400	53,193	10	61,203
1970	8,174	118,746	96,605	633	224,158
1971	2,857	118,995	26,237	423	148,602
1972	4,936	43,490	26,374	743	75,543
1973	3,588	76,341	35,584	0	115,513
1974	2,275	11,931	4,554	0	19,210
1975	5,428	11,350	4,868	0	21,646
1976	1,517	412	48,848	45	50,822
1977	6,723	70,167	65,659	3,229	145,778
1978	5,525	19,224	48,669	100	73,518
1979	12,759	180,558	29,711	0	223,028
1980	4,605	32,246	35,921	720	73,492
1981	23,880	238,393	73,501	3,279	339,053
1982	18,446	62,877	108,946	7,698	197,987
1983	14,281	27,203	142,901	7,934	192,319
1984 2/	9,598	3,077	70,595	10,534	93,804
1985	5,509	11,844	8,134	5,146	30,638
30 Year Total	376,329	2,138,824	1,175,675	55,970	3,746,798
30 Year Average	12,544	71,294	39,189	1,866	124,893
% of Total	10.04	57.09	31.38	1.49	100.00

1/ Data source: Final IBM computer runs, 1955-1983 and processor catch reports.

2/ Preliminary data.

